

JOHN MAXWELL  
Chairman

PHILIP AGLIETTI  
Vice-Chair

**TOWN OF CARMEL**  
**ZONING BOARD OF APPEALS**



60 McAlpin Avenue  
Mahopac, New York 10541  
Tel. (845) 628-1500 – Ext 187  
[www.ci.carmel.ny.us](http://www.ci.carmel.ny.us)

MICHAEL  
CARNAZZA  
Director of Code  
Enforcement

**BOARD MEMBERS**

ROSE FABIANO  
SILVIO BALZANO  
JOHN STARACE  
JULIE MCKEON

**LEGAL NOTICE**

By the Zoning Board of Appeals of the Town of Carmel pursuant to Section 267 Town Law, notice is hereby given that a hearing will be held on:

**JANUARY 26, 2023 – 7:30 P.M.**

To hear the following applications:

**HOLD OVER APPLICATIONS:**

1. Application of **LUCIO & CYNTHIA ROCCA** for a Variation of Section 156-15 seeking a Variance for permission to retain 2 sheds & metal carport. The property is located at 56 Ernhofer Drive, Carmel NY and is known as Tax Map #77.13-2-37.

| Code Requires/Allows | Provided | Variance Required |
|----------------------|----------|-------------------|
| Westerly shed: 40'   | 5' 8"    | 34' 4"            |
| Easterly shed: 40'   | 12' 7"   | 27' 5"            |
| Metal Carport: 40'   | 6"       | 39' 6"            |

2. Application of **KIWI COUNTRY DAY CAMP** for a Variation of Section 156-10A seeking a Variance for permission to expand day camp onto adjacent residential lot already occupied as a one family dwelling. The property is located at 825 Union Valley Road, Mahopac NY and is known as Tax Map #77.17-1-31 & 32.

| Code Requires/Allows                                   | Provided                                                                                 | Variance Required                                                                                                                                                                                                        |
|--------------------------------------------------------|------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| One main building & one accessory building on one lot. | Expand day camp onto adjacent residential lot already occupied as a one family dwelling. | Applicant seeks interpretation that the property has Town of Carmel approval to permit two principal uses on one lot per filed map #2857; or in the alternative, a use variance to permit two principal uses on one lot. |

## **NEW APPLICATIONS:**

3. Application of **GLENACOM (aka GLENCOMA) LAKE** for a Variation of Section 156-20, 156-62.O.2 & 156-62.O.5 seeking a Variance for permission to locate a public utility wireless telecommunications facility at the site. The property is located on Walton Drive - Mahopac NY and is known as Tax Map #87.5-1-90.

| <b>Code Requires/Allows</b>       | <b>Provided</b>           | <b>Variance Required</b>                                       |
|-----------------------------------|---------------------------|----------------------------------------------------------------|
| 50 Feet Maximum in Height         | 140 Feet in Height        | 90 Foot Height Variance                                        |
| 280 Feet Minimum in Tower Setback | 174 Feet in Tower Setback | 106 Foot Tower Setback Variance to nearest occupied residence. |
| Fence 4 or 6 Feet in Height       | Fence 8 Feet in Height    | 4 Foot Height Variance for Fence.                              |

4. Application of **PLATINUM PROPANE** for a Variation of Section 156-15 seeking a Variance for permission to convert a 1 family house into a propane facility. The property is located at 1035 Route 6, Mahopac NY and is known as Tax Map #65.10-2-11.

| <b>Code Requires/Allows</b>                 | <b>Provided</b>   | <b>Variance Required</b> |
|---------------------------------------------|-------------------|--------------------------|
| Front Yard Setback of 40'                   | 22'               | 18'                      |
| Minimum Square footage of 5,000 square feet | 1,938 square feet | 3,062 square feet        |

## **MISCELLANEOUS:**

**MINUTES:** December 22, 2022

By Order of the Chairman,

John Maxwell

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ZONING BOARD OF APPEALS  
TOWN OF CARMEL  
PUTNAM COUNTY

Town Hall, Town of Carmel  
60 McAlpin Ave.  
Mahopac, N.Y. 10541  
(845)628-1500

*ME*

IN THE MATTER OF THE APPEAL  
OF  
Lucio & Cynthia Rocco  
TO THE ZONING BOARD OF APPEALS  
OF THE TOWN OF CARMEL

Application Date: 12/6, 2022

Application For (circle applicable): Area Variance (156.15) Use Variance Interpretation 280A  
Name of Property Owner: Lucio & Cynthia Rocco Address: 56 Ernhofer Dr., Carmel, NY  
Mailing Address: 56 Ernhofer Dr., Carmel, NY Phone Number(s): 914-741-9200/914-879-8742  
Zoning District: Residential Tax Map: 77.13 - 2 - 37  
Applicant is: (circle one) (Owner) (Lessee) (Contract Vendee) [Attach deed, contract of sale or lease agreement]  
E-Mail Address: waslaw@shillinglegal.com

Previous Appeals regarding the subject premises:

| DATE | REQUEST | RESULTS |
|------|---------|---------|
|      | N/A     |         |
|      |         |         |
|      |         |         |
|      |         |         |

List all improvements (1 family dwelling, pool, etc.) 2 story residence, 3 sheds, metal carport, flagstone patio

The owner shall submit with this application supporting materials including plans, elevations, landscaping diagrams, traffic circulation diagrams, neighborhood land use maps, property survey, photographs of property and any other materials that will assist the Board to understand the request. List attachments here: survey, Memorandum of Law

Is any portion of the property within 500 ft. of any state or county highway, town boundary, parkway or public lands? YES/NO  
Explain: Ernhofer Dr. CROTON FALLS RD

I, the applicant, am seeking permission to: retain 2 sheds and metal carport

| CODE REQUIRES / ALLOWS | PROVIDED | VARIANCE REQUIRED |
|------------------------|----------|-------------------|
| westerly shed 40'      | 5'8"     | 3'4"              |
| easterly shed 40'      | 12'7"    | 2'5"              |
| metal carport 40'      | 6"       | 3'9"              |
|                        |          |                   |
|                        |          |                   |

State of New York )  
                                  ss  
County of Putnam )

The undersigned petitioner, being duly sworn, deposes and says that (he) (she) has read the foregoing petition and knows the content thereof, and that the same is true to (his) (her) knowledge except as to the matters therein stated to be on information and belief, and as to those matters (he) (she) believes to be true.

Sworn to before me this 21 day of NOV, 2022

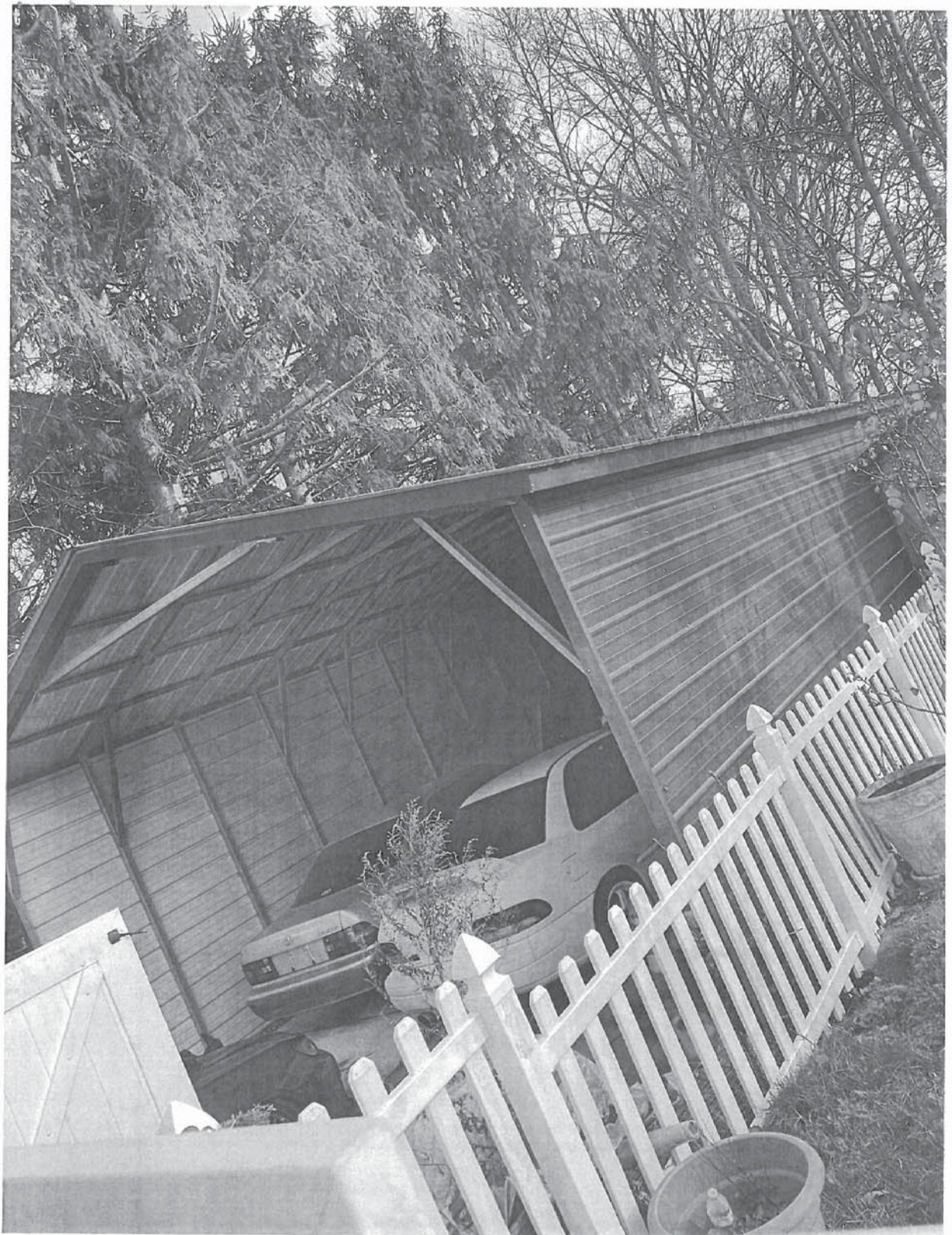
Notary Public

WILLIAM A. SHILLING JR.  
Notary Public, State of New York  
Reg. No. 02SH4703423  
Qualified in Putnam County  
Commission Expires 07/31/2026

Petitioner [Signature] Date \_\_\_\_\_







*MB*



ZONING BOARD OF APPEALS  
TOWN OF CARMEL  
PUTNAM COUNTY

Town Hall, Town of Carmel  
60 McAlpin Ave.  
Mahopac, N.Y. 10541  
(845)628-1500

IN THE MATTER OF THE APPEAL  
OF  
**Kiwi Country Day Camp**  
TO THE ZONING BOARD OF APPEALS  
OF THE TOWN OF CARMEL

Application Date: \_\_\_\_\_, 20\_\_\_\_

Application For (circle applicable): Area Variance <sup>(156.10A)</sup> Use Variance Interpretation 280A  
Name of Property Owner: **Kiwi Country Day Camp** Address: **825 Union Valley Road, Mahopac, NY**  
Mailing Address: **825 Union Valley Road, Mahopac, NY** Phone Number(s): **914-276-2267**  
Zoning District: **Residential** Tax Map: **77.17 - 1 - 31&32**  
Applicant is: (circle one) **Owner** (Lessee) (Contract Vendor) [Attach deed, contract of sale or lease agreement]  
E-Mail Address: **waslaw@shillinglegal.com**

Previous Appeals regarding the subject premises:

| DATE   | REQUEST                                                     | RESULTS |
|--------|-------------------------------------------------------------|---------|
| 7/2005 | Use variance to allow continued use of camp apt.            | Granted |
|        | Use variance to use detached groundskeeper apt. over garage |         |
|        | Area variance for camp building & garage                    |         |
|        | See Schedule "A" attached                                   |         |

List all improvements (1 family dwelling, pool, etc.) **See Schedule "B" attached**

The owner shall submit with this application supporting materials including plans, elevations landscaping diagrams, traffic circulation diagrams, neighborhood land use maps, property survey, photographs of property and any other materials that will assist the Board to understand the request. List attachments here: site plan proposal, survey, affidavit of applicant, memorandum of law

Is any portion of the property within 500 ft. of any state or county highway, town boundary, parkway or public lands? YES/NO  
Explain: Union Valley Road

I, the applicant, am seeking permission to: \_\_\_\_\_

| CODE REQUIRES / ALLOWS                                | PROVIDED                                                                                | VARIANCE REQUIRED                                                                                                                                                                                                     |
|-------------------------------------------------------|-----------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| One main building and 1 accessory building on one lot | Expand day camp onto adjacent residential lot already occupied as a one family dwelling | Applicant seeks interpretation that the property has Town of Carmel approval to permit two principal uses on one lot per filed map #2657 or in the alternative a use variance to permit two principal uses on one lot |

State of New York )  
County of Putnam )  
The undersigned petitioner, being duly sworn, deposes and says that (he) (she) has read the foregoing petition and knows the content thereof, and that the same is true in (his) (her) knowledge except as to the matters therein stated to be on information and belief, and as to those matters (he) (she) believes to be true.  
Sworn to before me this 27<sup>th</sup> day of December, 2022  
*Margaret Ferreri Buechel*  
Notary Public  
MARGARET FERRERI BUECHEL  
Notary Public, State of New York  
No. 4915019  
Qualified in Dutchess County  
Commission Expires February 8, 2026  
Petitioner: \_\_\_\_\_ Date: 12/27/2022

Atta. 2

4) THE VARIANCE, IF GRANTED, WILL NOT HAVE AN ADVERSE EFFECT OR IMPACT ON THE PHYSICAL AND ENVIRONMENTAL CONDITIONS IN THE NEIGHBORHOOD.

5) THE DIFFICULTY, CREATED BY THE APPLICANT, DOES NOT PRECLUDE THE GRANTING OF THE VARIANCE.

THIS ACTIVITY IS A TYPE II ACTION REQUIRING NO DETERMINATIONS AS SET FORTH AT 6 N.Y.C.R.R. 617.13 (s)(8) (S.E.Q.R.)

DECISION

THE FOLLOWING VARIANCES ARE HEREBY GRANTED:

A USE VARIANCE FROM SECTION 63-10(J) TO ALLOW THE CONTINUED USE OF AN ON SITE CAMP DIRECTOR'S APARTMENT.

A USE VARIANCE TO ALLOW CONTINUED USE OF A PRE-EXISTING, DETACHED GROUNDSKEEPER APARTMENT LOCATED OVER AN EXISTING GARAGE.

A VARIATION OF SECTION 63.9 FOR AN AREA VARIANCE FROM THE 40 FOOT FRONT YARD CODE REQUIREMENT FOR THE EXISTING CAMP OFFICE BUILDING AND EXISTING GARAGE, 27 FEET WILL EXIST; VARIANCE OF 13 FEET IS HEREBY GRANTED.

THE VARIANCES ARE SUBJECT TO THE FOLLOWING CONDITIONS:

WHEN THE TENANT IN THE GARAGE APARTMENT VACATES THE PREMISES, IT SHALL ONLY BE USED BY A GROUNDSKEEPER AND THE SECOND APARTMENT SHALL ALSO BE USED BY A CAMP EMPLOYEE.

IF A BUILDING PERMIT IS NOT ISSUED WITHIN TWO YEARS OF THE DATE OF THIS DECISION AND ORDER, THE VARIANCE SHALL BE NULL AND VOID.


DATED, MAHOPAC, N.Y.  
ON *July 7*, 2005

FILED IN THE OFFICE OF THE TOWN CLERK  
MAHOPAC, N.Y. ON *July 7*, 2005

SUBMITTED TO PUTNAM COUNTY DIVISION  
OF PLANNING (NOT REQUIRED)

APPROVED BY PUTNAM COUNTY DIVISION  
PLANNING (NOT REQUIRED)

  
MARK FRASER, CHAIRMAN

  
MARGARET MOORE, CLERK



DECISION AND ORDER

NAME OF PETITIONER: CAMP KIWI, INC.  
ADDRESS: PO BOX 435, MAHOPAC, NY 10541  
LOCATION OF PROPERTY: UNION VALLEY ROAD, MAHOPAC, NY 10541  
TAX MAP NUMBER: 77.17-1-32, 77.13-1-41, 77.13-1-6, 77.13-2-16  
NATURE OF PETITION: VARIATION OF SECTION 63.9, 63.10, 63.11  
PRESENT AT THE MEETING: CHAIRMAN, MARK FRASER, RICHARD FAVICCHIA, ROSE FABIANO, LORRAINE MARIANI, JOHN MAXWELL, JOSEPH DIVESTEA, JAMES FERRICK.

\*\*\*\*\*  
THE ABOVE REFERRED TO PETITION, HAVING BEEN DULY ADVERTISED FOR A PUBLIC HEARING IN THE PUTNAM COURIER TRADER, THE OFFICIAL PAPER OF THE TOWN OF CARMEL, IN THE ISSUE PUBLISHED ON MAY 12, 2005 AND THE PRESS, THE OTHER OFFICIAL PAPER OF THE TOWN OF CARMEL IN THE ISSUE PUBLISHED ON MAY 11, 2005, THE MATTER HAVING DULY COME ON TO BE HEARD BEFORE A DULY CONVENED MEETING OF THE BOARD AT THE TOWN HALL, MAHOPAC, NEW YORK ON MAY 26, 2005, AND ALL THE FACTS AND EVIDENCE PRODUCED BY THE PETITIONER, BY THE ADMINISTRATIVE OFFICIAL CONCERNED, AND BY INTERESTED PARTIES HAVING BEEN DULY HEARD, RECEIVED AND CONSIDERED, AND DUE DELIBERATION HAVING BEEN HAD, THE FOLLOWING DECISION IS HEREBY MADE:

FINDING OF FACT

APPLICATION CONCERNS A DAY CAMP, SCHOOL AND RECREATION CENTER ACCORDING TO ITS LETTERHEAD. APPLICANT SEEKS A USE VARIANCE TO CONTINUE THE USE OF AN ON SITE CAMP DIRECTOR'S APARTMENT IN A BUILDING WHICH ALSO HOUSES A MOM/POP SHOW FOR THE CAMPER, A WELCOME/RECEPTION AREA AND OFFICES. APPLICANT ALSO REQUESTS A VARIANCE TO CONTINUE THE PRE-EXISTING, DETACHED GROUNDSKEEPER APARTMENT OVER AN EXISTING GARAGE. APPLICANT ALSO REQUESTED ESTABLISHMENT OF A PARKING FACILITY ON AN ADJACENT LOT AND A REQUEST FOR GRAVEL PARKING ON THAT LOT. THESE LAST TWO REQUESTS CONCERNING PARKING WERE WITHDRAWN AT THE MAY 26, 2005 MEETING.

MARCH 24, 2005

APPLICANTS APPEARED BEFORE THE BOARD WITH THEIR ATTORNEY, THOMAS JACOBELLIS, AND THEIR ENGINEER, PETER KARIS.

AFTER A LENGTHY DISCUSSION THE BOARD MOVED TO HOLD THE MATTER OVER TO GIVE MR. JACOBELLIS AN OPPORTUNITY TO AMEND THE APPLICANT'S LEASE ON ADJACENT PROPERTY TO A PERPETUAL LEASE AND NOT A LEASE WITH MULTIPLE OPTIONS TO RENEW AND AN OPTION TO PURCHASE.

APRIL 28, 2005

APPLICANT'S ATTORNEY, MR. JACOBELLIS, APPEARED BEFORE THE BOARD AND ASKED THAT THIS MATTER BE HELD OVER ONCE MORE SO THAT HE MAY CONSULT WITH THE TOWN ATTORNEY CONCERNING THE 2002 BOARD DECISION AND WHETHER OR NOT IT SHOULD BE NULLIFIED AS HE DID NOT FEEL HIS CLIENT HAD STANDING BEFORE THE BOARD AT THAT TIME AS HE DID NOT HAVE A PERPETUAL LEASE OR FEE OWNERSHIP OF THE OFF SITE PARCEL.

AS MR. JACOBELLI ASKED, THE BOARD MOVED TO HOLD THE MATTER OVER.

MAY 26, 2005

MR. IVAN BELLOTTO, MR. LOU BELOTTO, THE APPLICANTS, AND THEIR ATTORNEY, THOMAS J. JACOBELLIS, ALL APPEARED BEFORE THE BOARD.

SINCE THERE WAS A QUESTION WHETHER OR NOT THIS APPLICANT IS BEFORE THE BOARD REQUESTING A REHEARING OR A NEW APPLICATION, THE BOARD HAD OBTAINED AN OPINION FROM THE TOWN ATTORNEY AND MR. FRASER SAID IT WAS HIS OPINION THAT THIS MATTER SHOULD FALL UNDER THE REHEARING STANDARDS.

MR. JACOBELLI ASKED TO AMEND HIS APPLICATION WITHDRAWING THAT PORTION OF HIS APPLICATION FOR PARKING ON THE RESIDENTIAL PIECE AND MOVE FORWARD WITH THE BALANCE OF THE APPLICATION, A USE VARIANCE FOR THE CONTINUATION OF THE CAMP DIRECTOR'S APARTMENT AND GROUNDSKEEPER APARTMENT. THE TENANT IN THE GARAGE APARTMENT HAS BEEN THERE FOR 25 YEARS AND WILL BE ALLOWED TO STAY BUT WHEN HE VACATES THE APARTMENT IT WILL BE LIMITED TO USE BY A CAMP EMPLOYEE WHICH HE STATES IS NEEDED FOR SECURITY REASONS. MR. JACOBELLIS SAID IF THE BOARD GRANTS THE USE VARIANCE, MINOR AREA VARIANCES WILL ALSO BE REQUIRED.

PURCHASE OF ADDITIONAL LAND IN ORDER TO CONFORM TO CODE IS NOT AN OPTION.

THERE WAS NO PUBLIC OPPOSITION TO THE GRANTING OF THE VARIANCE.

#### CONCLUSION

THE BOARD CONSIDERED THE CRITERIA FOR A USE VARIANCE AS FOLLOWS:

THERE CAN BE NO REASONABLE RETURN FOR ALL USES IN ZONING DISTRICT AND APPLICANT MUST SHOW FINANCIAL HARDSHIP.

THE HARDSHIP IS UNIQUE TO THIS LOT. IT IS THE ONLY CAMP IN THE AREA.

THERE WILL BE NO ALTERATION TO THE ESSENTIAL CHARACTER OF THE NEIGHBORHOOD.

THE HARDSHIP IS NOT SELF-CREATED.

MEMBERS OF THE BOARD ARE FAMILIAR WITH THE SUBJECT PREMISES AND THE CONDITIONS IN THE IMMEDIATE NEIGHBORHOOD. THE BOARD HAS TAKEN INTO CONSIDERATION THE BENEFIT TO THE APPLICANT IF THE VARIANCE IS GRANTED AS WEIGHED AGAINST THE DETRIMENT TO THE HEALTH, SAFETY AND WELFARE OF THE NEIGHBORHOOD AND COMMUNITY.

THE BOARD ALSO CONSIDERED THOSE CRITERIA FOR AN AREA VARIANCE AS SET FORTH AT TOWN LAW SECTION 267-b(3)(b) AND DETERMINED THAT:

- 1) AN UNDESIRABLE CHANGE WILL NOT BE PRODUCED IN THE CHARACTER OF THE NEIGHBORHOOD AND A SIGNIFICANT DETRIMENT WILL NOT RESULT TO NEARBY PROPERTIES IF THE VARIANCE IS GRANTED.
- 2) THE BENEFIT SOUGHT BY THE APPLICANT CANNOT BE ACHIEVED BY OTHER METHODS;
- 3) THE VARIANCE REQUESTS ARE NOT SUBSTANTIAL.

From: Adam Thyberg, RLA  
Sent: Tuesday, November 8, 2022 11:55 AM  
To: 'William A. Shilling, Jr.' <waslaw@shillinglegal.com>  
Cc: Jeff Contelmo <JContelmo@insite-eng.com>  
Subject: RE: Camp Kiwi

✓  
B ✓

Bill,

**77.17-1-31**

Existing

Single family residence with drilled well, septic & driveway.  
Part of a playing field within an existing easement for such use, and various camp apparatus.  
(2) sheds, and a maintenance area.  
A portion of the camp's gravel drive.

Proposed

(4) 30' Diameter Yurts  
4' Driveway gate near frontage with Blossom Lane

**77.17-1-32**

Existing

A building dedicated to the camp offices.  
A cafeteria building, part of which is also used for camp programming.  
A building with a dwelling above a storage space.  
Numerous septic systems & wells.  
A gravel driveway loop.  
Gravel walking trails.  
Various programming buildings, apparatus & playgrounds.  
Numerous storage sheds.  
(4) Swimming pools  
Various sports courts and fields including basketball, tennis, baseball, etc.  
A stage and associated seating.  
A pond with a dock and bridge.  
Numerous tents, decks, and shade structures.  
Numerous restroom facilities.  
Refuse enclosure.

Proposed

Formalized 11 parking spaces near the entrance on Union Valley Road.

**Two Sheds on 77.17-1-31**

These dimensions are based on the survey, I will double check the original survey work, and maybe stop out this afternoon to confirm their size. If I stop out, I will write to confirm, and send a few pictures this afternoon or tomorrow AM.

Shed 1:

12'x12'+-; to the rear of the existing dwelling; 71'+- to the nearest side yard property line.

Shed 2

16'x10'+-; further to the rear of the existing dwelling, acting as part of the maintenance area enclosure (see plan); 44'+- from the nearest side yard property line, 153'+- to the rear property line.

Thanks

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**Adam Thyberg, RLA, Associate**

Project Landscape Architect

**INSITE ENGINEERING, SURVEYING & LANDSCAPE ARCHITECTURE, P.C.**  
(845) 225-9690 x147

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**From:** William A. Shilling, Jr. <[waslaw@shillinglegal.com](mailto:waslaw@shillinglegal.com)>

**Sent:** Monday, November 7, 2022 4:17 PM

**To:** Adam Thyberg, RLA <[athyberg@insite-eng.com](mailto:athyberg@insite-eng.com)>

**Subject:** Camp Kiwi

Dear Adam:

I need a list of all the improvements on the two lots (77.17-1-31 and 77.17-1-32).

I also need information on the two sheds – the size, location and distance from boundary lines, etc.

Bill



ZONING BOARD OF APPEALS  
TOWN OF CARMEL  
PUTNAM COUNTY

Town Hall, Town of Carmel  
60 McAlpin Ave.  
Mahopac, N.Y. 10541  
(845)628-1500

**AUTHORIZATION FORM**

RE: Property of: Kiwi Country Day Camp  
Located at: 825 Union Valley Road (Owner), Mahopac, NY  
(Address) (City, Town, Village)  
Tax Map #: 77.17-1-31 & 31  
In the matter of: Kiwi Country Day Camp  
(Variance Request)

To whom it may concern:

This letter is to authorize Shilling & Smith, P.C.

a/an (check one) Attorney  Engineer  Architect  Other \_\_\_\_\_ (\_\_\_\_\_)

to apply for the required variance(s) on the above noted property and to sign all necessary papers and make all necessary representations on my behalf in connection with the above-mentioned matter.

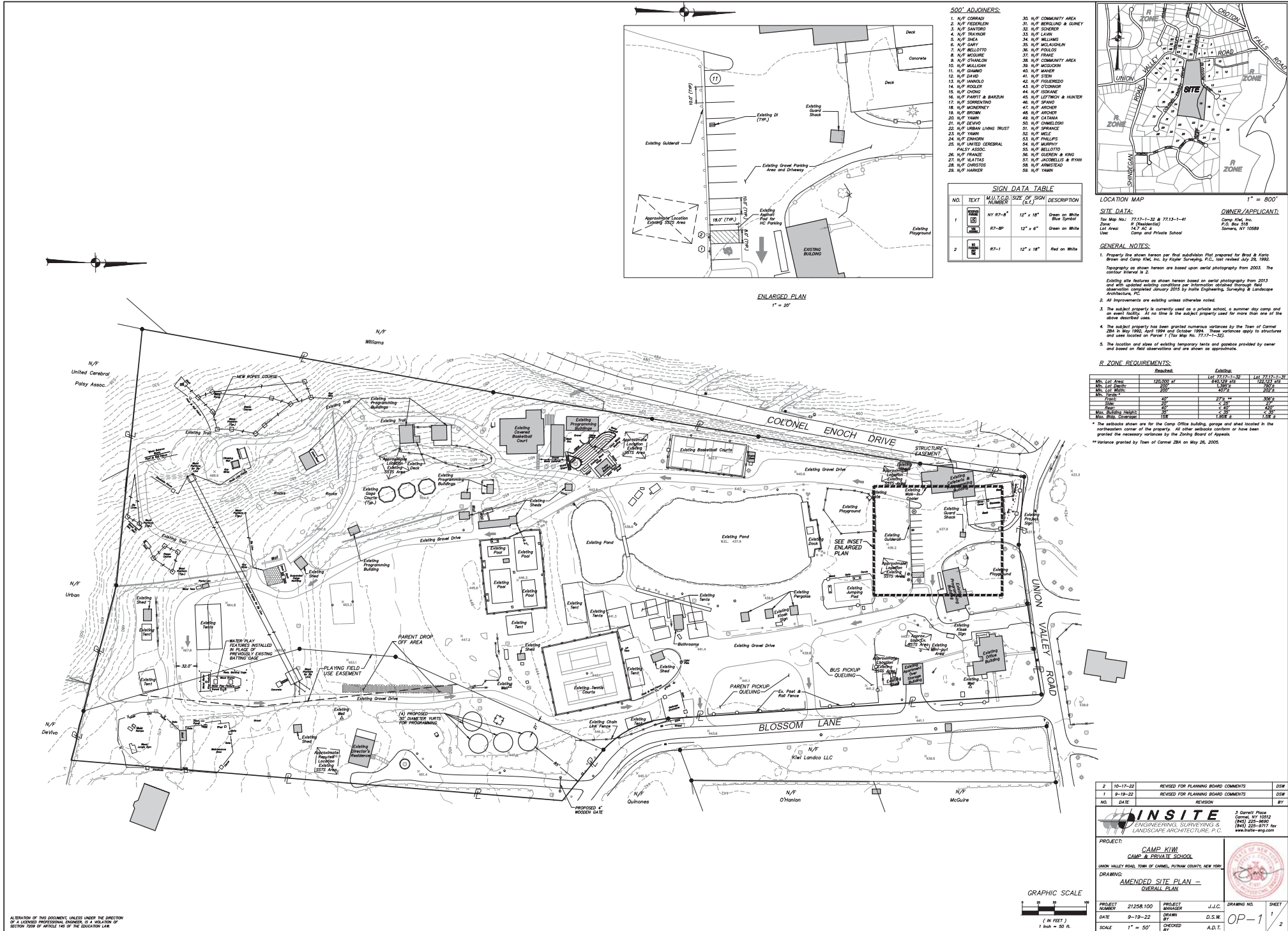
Countersigned: [Signature]  
(Representative)  
William A. Shilling, Jr., Esq.  
(Print Name)

Signed: [Signature]  
(Owner of Property)  
Will Yahr  
(Print Name)

Mailing Address: Shilling & Smith, P.C.  
122 Old Route 6, Carmel  
State: NY Zip: \_\_\_\_\_  
Telephone # 845-225-7500  
Date: \_\_\_\_\_  
E-mail: waslaw@shillinglegal.com

Mailing Address: 825 Union Valley Road, Mahopac  
State: NY Zip: \_\_\_\_\_  
Telephone # \_\_\_\_\_

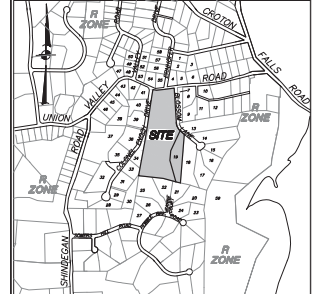
NOTE: The willful submission of false or inaccurate information on this application may result in the dismissal of the application, or the revocation of any action taken on the application, or both.



- 500' ADJACENTS:**
- N/F CORRAE
  - N/F FESSELIN
  - N/F SARTOR
  - N/F TRAMOR
  - N/F DECA
  - N/F GARY
  - N/F BELLETTI
  - N/F MOORE
  - N/F DHALIN
  - N/F MULLIGAN
  - N/F DAMO
  - N/F ROGER
  - N/F MANOLO
  - N/F HARTY & BARLIN
  - N/F CHONG
  - N/F SORRENTINO
  - N/F MONONEY
  - N/F BROWN
  - N/F TAMM
  - N/F DE VITO
  - N/F URBAN LIVING TRUST
  - N/F TAMM
  - N/F TAMM
  - N/F TAMM
  - N/F UNITED GENERAL
  - N/F ASSOCI
  - N/F PRANZE
  - N/F GEMEN & KING
  - N/F CHRISTOS
  - N/F HANER
  - N/F COMMUNITY AREA
  - N/F BERGLUND & SUNNY
  - N/F LAM
  - N/F WILLIAMS
  - N/F McLAUGHLIN
  - N/F FOLLOS
  - N/F FRANE
  - N/F COMMUNITY AREA
  - N/F ACCIONE
  - N/F MAHER
  - N/F STEIN
  - N/F FERRERO
  - N/F O'CONNOR
  - N/F SPANAKI
  - N/F LETTICH & HUNTER
  - N/F SPANO
  - N/F ARDREY
  - N/F CAHANA
  - N/F DANIELLO
  - N/F PINELLI
  - N/F MELI
  - N/F BELLOTTO
  - N/F GEMEN & KING
  - N/F JACOBELLI & PIVAN
  - N/F ARMISTEAD
  - N/F TAMM

**SIGN DATA TABLE**

| NO. | TEXT           | MULTIPLE SIZE OF SIGN NUMBER | SIZE OF SIGN (x,H) | DESCRIPTION                |
|-----|----------------|------------------------------|--------------------|----------------------------|
| 1   | 18" x 12" (TP) | 1                            | 12" x 18"          | Green on White Blue Symbol |
| 2   | 18" x 12" (TP) | 1                            | 12" x 18"          | Green on White             |



**LOCATION MAP** 1" = 800'

**SITE DATA:**  
 Tax Map No.: 7717-1-22 & 7713-1-41  
 Parcel No. (Reference): 7717-1-22  
 Lot Area: 14,9 AC ±  
 Use: Camp and Private School

**OWNER/APPLICANT:**  
 Camp Kiwi, Inc.  
 P.O. Box 218  
 Corvallis, OR 97339

- GENERAL NOTES:**
- Property line shown herein per final subdivision Plat prepared for Kiwi Brown and Camp Kiwi, Inc. by Roger Corrae, P.C., last revised July 28, 1992. Topography as shown herein are based upon aerial photography from 2003. The contour interval is 2'.
  - All improvements are existing unless otherwise noted.
  - The subject property is currently used as a private school, a summer day camp and an event facility. At no time is the subject property used for more than one of the above described uses.
  - The subject property has been granted numerous variances by the Town of Corvallis in May 1992, April 1994 and October 1995. These variances relate to structures and site related existing conditions per information obtained through field observation completed January 2015 by InSite Engineering, Surveying & Landscape Architecture, P.C.
  - The location and sizes of existing temporary fields and structures provided by owner and based on field observations and are shown as appropriate.

**R ZONE REQUIREMENTS:**

| Req.               | Minimum       | Existing     | Lot 7717-1-22 | Lot 7713-1-41 |
|--------------------|---------------|--------------|---------------|---------------|
| Min. Lot Area      | 125,000 sq ft | 14,900 sq ft | 14,900 sq ft  | 14,900 sq ft  |
| Min. Lot Width     | 200'          | 110'         | 110'          | 110'          |
| Min. Front Setback | 25'           | 27 1/2'      | 27 1/2'       | 27 1/2'       |
| Min. Side Setback  | 5'            | 5'           | 5'            | 5'            |
| Min. Rear Setback  | 5'            | 5'           | 5'            | 5'            |

\* The setbacks shown are for the Camp Office building, garage and shed located in the northeastern corner of the property. All other setbacks conform or have been granted the necessary variances by the zoning Board of Appeals.

\*\* Variances granted by Town of Corvallis ZBA on May 26, 2005.

2 10-17-22 REVISED FOR PLANNING BOARD COMMENTS DSW

1 9-19-22 REVISED FOR PLANNING BOARD COMMENTS DSW

NO. DATE REVISION BY

**INSITE ENGINEERING, SURVEYING & LANDSCAPE ARCHITECTURE, P.C.**

3 Corvallis Phone: 531-5512  
 Corvallis, OR 97339  
 (541) 225-8992  
 (541) 225-8997 fax  
 www.insite-eng.com

**PROJECT:**  
 CAMP KIWI  
 CAMP & PRIVATE SCHOOL  
 UNION HILLS FARM, TOWN OF CORVALLIS, PUTNAM COUNTY, NEW YORK

**DRAWING:**  
 AMENDED SITE PLAN - OVERALL PLAN

**PROJECT NUMBER:** 21258.100  
**DATE:** 9-19-22  
**SCALE:** 1" = 50'

**J.J.C. PROJECT MANAGER**  
**D.S.W. DRAWN BY**  
**A.D.T. CHECKED BY**

**DRAWING NO. SHEET**  
 0P-1 1/2

ALL INFORMATION ON THIS DOCUMENT, UNLESS UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, IS A VIOLATION OF SECTION 2009 OF ARTICLE 146 OF THE EDUCATION LAW.

me



ZONING BOARD OF APPEALS  
TOWN OF CARMEL  
PUTNAM COUNTY

Town Hall, Town of Carmel  
60 McAlpin Ave.  
Mahopac, N.Y. 10541  
(845)628-1500

IN THE MATTER OF THE APPEAL  
OF  
Glenacom (a/k/a Glencoma) Lake  
TO THE ZONING BOARD OF APPEALS  
OF THE TOWN OF CARMEL

Application Date: December 7, 2022

Application For (circle applicable): Area Variance ( § 166-20, § 166-42, D.3, § 166-42, D.3, Total 60.7%) Use Variance Interpretation 280A  
Name of Property Owner: Homeland Towers, LLC Address: Walton Drive Mahopac NY  
Mailing Address: 4th Street & Denike, LLP, 84 White Plains Road, Tarrytown, NY 10591 Phone Number(s): (914) 333-0700  
Zoning District: Residential Tax Map: 87.5 1 90  
Applicant is: (circle one) (Owner)  (Lessee) (Contract Vendor) (Attach deed, contract of sale or lease agreement)  
E-Mail Address: rgaudioso@snyderlaw.net  
Previous Appeals regarding the subject premises: N/A

| DATE | REQUEST | RESULTS |
|------|---------|---------|
|      |         |         |
|      |         |         |
|      |         |         |
|      |         |         |

List all improvements (1 family dwelling, pool, etc.)  
The owner shall submit with this application supporting materials including plans, elevations, landscaping diagrams, traffic circulation diagrams, neighborhood land use maps, property survey, photographs of property and any other materials that will assist the Board to understand the request. List attachments here: Please see cover letter.  
Is any portion of the property within 500 ft. of any state or county highway, town boundary, parkway or public land? YES/NO  
Explain: Yes, the property is within 500 feet of the boundary of an adjoining municipality.  
I, the applicant, am seeking permission to: locate a public utility wireless telecommunications facility at the site

| CODE REQUIRES / ALLOWS            | PROVIDED                         | VARIANCE REQUIRED                             |
|-----------------------------------|----------------------------------|-----------------------------------------------|
| <u>30</u> feet maximum in height  | 140 feet in height               | <u>4'</u> Height variance                     |
| 280 feet minimum in tower setback | <u>174</u> feet in tower setback | <u>106'</u> tower setback variance <u>#0</u>  |
| Fence 4 or 6 feet in height       | Fence 8 feet in height           | <u>4'</u> Height variance<br><u>For fence</u> |
|                                   |                                  |                                               |
|                                   |                                  |                                               |

request accepted  
Revised

State of New York )  
County of Putnam )  
I, the undersigned petitioner, being duly sworn, depose and say that (he) (she) has read the foregoing petition and knows the content thereof, and that the same is true to (his) (her) knowledge except as to the matters therein stated to be on information and belief, and as to those matters (he) (she) believes to be true.  
Sworn to before me this 7th day of December, 2022

David James Kenny  
NOTARY PUBLIC, STATE OF NEW YORK  
Registration No. 02KE6343903  
Qualified in Westchester County  
Commission Expires June 20, 2026

Homeland Towers, LLC and Verizon Wireless  
Petitioner [Signature] Date 12/7/22



ZONING BOARD OF APPEALS  
TOWN OF CARMEL  
PUTNAM COUNTY

Town Hall, Town of Carmel  
60 McAlpin Ave.  
Mahopac, N.Y. 10541  
(845)628-1500

**AUTHORIZATION FORM**

RE: Property of: Maple Hill Estates Homeowners Association, Inc.  
(Owner)  
Located at: Walton Drive, Mahopac, NY 10541  
(Address) (City, Town, Village)  
Tax Map #: 87.5-1-90  
In the matter of: Height and tower setback variance requests for Glenacom (a/k/a Glencoma) Lake  
(Variance Request)

To whom it may concern:

This letter is to authorize Homeland Towers, LLC

a/an (check one) Attorney  Engineer  Architect  Other  ( Lessee )

to apply for the required variance(s) on the above noted property and to sign all necessary papers and make all necessary representations on my behalf in connection with the above-mentioned matter.

Countersigned: See attached Letter of Authorization.  
(Representative)  
(Print Name)

Signed: \_\_\_\_\_  
(Owner of Property)  
(Print Name)

Mailing Address: \_\_\_\_\_

Mailing Address: \_\_\_\_\_

State: \_\_\_\_\_ Zip: \_\_\_\_\_

State: \_\_\_\_\_ Zip: \_\_\_\_\_

Telephone # \_\_\_\_\_

Telephone # \_\_\_\_\_

Date: \_\_\_\_\_

E-mail: \_\_\_\_\_

NOTE: The willful submission of false or inaccurate information on this application may result in the dismissal of the application, or the revocation of any action taken on the application, or both.



**Maple Hill Estates, H.O.A. Inc.**

c/o Home Management Co.  
137 Mitchell Road  
Somers, NY 10589

**Letter of Authorization**

**Municipality:** Town of Carmel  
**Tax Parcel:** 87.5-1-90

Re: Owner Authorization

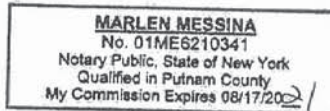
Maple Hill Estates Homeowners Association, Inc. the owner ("Owner") of the property identified as Maple Hill Estates, Maple Hill Road, Mahopac, NY 10541, Tax Parcel ID# 87.5-1-90 in the Town of Carmel, County of Putnam, State of New York, (the "Property") hereby authorizes Homeland Towers, LLC., ("Homeland") its agents, contractors and representatives as Owner's agents for the purpose of filing, executing and completing any application with the Town of Carmel and to obtain approvals necessary to permit Homeland's construction and operation of a wireless telecommunications facility on the Property.

Signature of Owner: *Y*

By:

*Mary R. Tyson*

Name: Mary Tyson  
Title: President  
Date: *5/2/2018*



Sworn to before me

This *12<sup>th</sup>* day of *May*, 2018

*[Signature]*  
Notary Public

LAW OFFICES OF  
**SNYDER & SNYDER, LLP**  
94 WHITE PLAINS ROAD  
TARRYTOWN, NEW YORK 10591

NEW YORK OFFICE  
445 PARK AVENUE, 9TH FLOOR  
NEW YORK, NEW YORK 10022  
(212) 749-1448  
FAX (212) 932-2693

(914) 333-0700  
FAX (914) 333-0743

NEW JERSEY OFFICE  
ONE GATEWAY CENTER, SUITE 2600  
NEWARK, NEW JERSEY 07102  
(973) 824-9772  
FAX (973) 824-9774

WRITER'S E-MAIL ADDRESS

REPLY TO:

LESLIE J. SNYDER  
ROBERT D. GAUDIOSO  
DOUGLAS W. WARDEN  
JORDAN M. FRY

rgaudioso@snyderlaw.net

TARRYTOWN OFFICE

DAVID L. SNYDER  
(1956-2012)

December 7, 2022

Honorable Chairman John Maxwell  
and Members of the Zoning Board of Appeals  
Town of Carmel Town Hall  
60 McAlpin Avenue  
Mahopac, New York 10541

Re: Application for area variances  
Glenacom (a/k/a Glencoma) Lake: Walton Drive, Carmel, New York

Honorable Chairman Maxwell  
and Members of the Zoning Board of Appeals:

We are the attorneys for Homeland Towers, LLC and New York SMSA Limited Partnership d/b/a Verizon Wireless ("Verizon") (collectively, the "Applicants") in connection with their request for area variances to locate a public utility wireless telecommunications facility ("Facility") at the above captioned property ("Property") pursuant to the attached **Court Order**.

Pursuant to the Court Order no additional fees are required and this application may be filed directly with the Zoning Board without an administrative determination.

The proposed Facility consists of a 140-foot tower and a fenced compound for related equipment. The Property is located in the Residential Zoning District where the Facility is permitted by special permit and site plan approval from the Planning Board in accordance with Section 156-62 of the Town of Carmel Zoning Code. This application was first filed to the Planning Board on January 24, 2020.

The Applicants seek following area variances: 1) a variance from Town Code §156-62(O)(2) for the proposed 140-foot height of the Facility, unless the height is approved by the Planning Board; 2) a variance from Town Code §156-20 for the proposed fence height of 8 feet to the extent the Town believes such a variance is required, or in the alternative the Applicants will reduce the height of the fence; and 3) a variance from Town Code §156-62(O)(5), as monopoles must be set back two times their height from residential buildings on adjacent or abutting properties.

Verizon is licensed by the Federal Communications Commission (“FCC”), and is considered a public utility in the State of New York because it provides an essential public service. See *Cellular One v. Rosenberg*, 82 N.Y.2d 364 (1993) (hereinafter referred to as “Rosenberg”); *Cellular One v. Meyer*, 607 N.Y.S.2d 81 (2nd Dept. 1994); *Sprint Spectrum L.P. v. Town of West Seneca*, 659 N.Y.S.2d 687 (Sup.Ct. Erie County, 1997); *Sprint Spectrum L.P. v. Zoning Board of Appeals of the Town of Guilderland*, 662 N.Y.S.2d 717 (Sup. Ct. Albany County, 1997). In *Rosenberg, supra*, New York’s highest court held that federally licensed wireless carriers are public utilities in the State of New York and provide an essential public service. The court found that public utilities such as Verizon are entitled to a relaxed standard in zoning decisions, since the proposed use is necessary for it to render safe and adequate service.

The instant application is filed in furtherance of the goals and objectives established by Congress under the federal Telecommunications Act of 1996. The federal Telecommunications Act of 1996 is “an unusually important legislative enactment,” establishing national public policy in favor of encouraging “rapid deployment of new telecommunications technologies (emphasis supplied).” *Reno v. ACLU*, 521 U.S. 844, 857 (1997). The federal Telecommunications Act of 1996 builds upon the regulatory framework for commercial mobile [radio] services which Congress established in 1993. Since 1993, it has been the policy of the United States to “foster the growth and development of mobile services that, by their nature, operate without regard to state lines as an integral part of the national telecommunications infrastructure.” H.R. Rep. No. 103-111, 103d Cong., 1st Sess. 260 (1993) (emphasis added). As such, Verizon is licensed to provide wireless telecommunications service to subscribers throughout New York, including those in the Town of Carmel.

In 1999, Congress expanded further upon this policy by enacting the Wireless Communications and Public Safety Act of 1999, Pub.L. 106-81, 113 Stat. 1286 (the “911 Act”). The “911 Act” empowered the FCC to develop regulations to make wireless 911 services available to all Americans. The express purpose of the Act, as articulated by Congress, was “to encourage and facilitate the prompt deployment throughout the United States of seamless, ubiquitous, and reliable end-to-end infrastructure for communications, including wireless communications, to meet the Nation’s public safety and other communications needs.” (emphasis added).

The standard for an area variance is set forth in Section 267-b(3) of New York State Town Law. Section 267-b of Town Law provides that in making its determination, the zoning board shall take into consideration the benefit to the applicant if the variance is granted as weighed against the detriment to the health, safety and welfare of the neighborhood by such grant. In making such determination, the statute directs the Board to consider five enumerated factors: (1) whether an undesirable change will be produced in the character of the neighborhood or a detriment to nearby properties will be created by granting of the area variance; (2) whether the benefit sought by the applicant can be achieved by some method feasible for the applicant to

pursue, other than an area variance; (3) whether the variance is substantial; (4) whether the proposed variance will have an adverse effect or impact on the physical conditions in the neighborhood; and (5) whether the alleged difficulty was self-created.

However, where the board is considering a public utility application such as in the instant case, there is a relaxed standard for a variance. See *Rosenberg*, where the New York Court of Appeals found that the siting of a federally licensed wireless carrier, such as Verizon, is entitled to the public utility variance exception, whereby an applicant is granted a variance if the proposed use is necessary for the applicant to provide safe and adequate service. The Court further found that “where the intrusion or burden on the community is minimal, the showing required by the utility shall be correspondingly reduced.” *Id.* at 372. The Court also made clear that a zoning board may not exclude a utility from a community where the utility has shown a need for its facilities. *Id.*

Moreover, in *Cellular Telephone Company v. Town of Oyster Bay*, 166 F.3d 490 (2d Cir. 1999), the United States Second Circuit Court of Appeals, citing *Rosenberg*, held that:

“[i]n New York, cellular telephone companies are afforded the status of public utilities. As such, a cellular telephone company’s application for a variance must be judged by the [Zoning Board of Appeals] on a different standard than that applied to the usual application for a use variance. Rather than granting a variance only on a showing of ‘unnecessary hardship,’ a local zoning board must consider whether the needs of the broader public would be served by granting the variance.”

*See Oyster Bay*, 166 F.3d at 494 (internal citations omitted).

It is respectfully submitted that all of the requirements attending the issuance of area variances have been met by the Applicants in the instant case. As noted above, Verizon is a federally licensed wireless carrier and a public utility for zoning purposes under New York State jurisprudence. The proposed Facility is necessary for Verizon’s ability to provide adequate service in the Town of Carmel.

The technology employed by Verizon limits the location and type of site that will allow it to comply with its statutory mandate to provide the required service. The Property in the instant case is ideally located to remedy Verizon’s identified service issues in the area. Collocation on an existing structure is not feasible, and the Facility is proposed at a height adequate to mitigate signal degradation, able to provide for collocation, and remedy Verizon’s service issues in the vicinity of the Site. Therefore, the Facility will satisfy Verizon’s need to provide its essential public service while creating only a minimal intrusion on the community.

By granting the requested area variances, the Zoning Board of Appeals will be acting in a manner consistent with law by permitting Verizon to comply with its legal mandate. Any potential impact on the community created by the variances is minimal and of no significant adverse effect.

More specifically, the Facility will not affect the character of the neighborhood or its physical conditions, nor be a detriment to nearby properties for a number of reasons. First, the proposed height is the minimum height necessary and the setback to the closest dwelling has been maximized to the greatest extent practicable given the topography. There are no collocation opportunities and there are no existing structures that are available to eliminate the need for the Facility. The access drive will be minimally used as the Facility is unmanned, there will be no visual impact created by the issuance of these variances. Please also note that all property line setback requirements contained in the zoning code have been met. Second, the Facility will comply with all applicable laws and standards, and will not adversely affect the public health, safety or the general welfare. With respect to health and safety, attached hereto is the FCC Compliance Report, which establishes that the Facility will be in complete compliance with the FCC's rules and regulations concerning radio frequency emissions. The increased fence height will add additional security to the Facility, which is a public utility use as defined above. Third, the Facility will also serve the neighborhood and benefit the entire community by offering a wireless telecommunications alternative which is particularly well suited for responding to accidents, natural disasters, and for reporting medical emergencies and other dangers such as potential criminal activity. Fourth, the proposal will have no impact on pedestrian or vehicular traffic, and the access drive width is also appropriate since the proposed Facility is unmanned, requiring infrequent maintenance visits of approximately once per month by Verizon. Fifth, the Facility will not produce any smoke, gas, odor, heat, dust, noise above ambient levels, fumes, vibrations or flashing lights. The Facility will not generate solid waste, waste water or sewage, will not require water supply or waste disposal, and will not attract insects, vermin or other vectors. No commercial or retail signage is proposed, therefore there will be no detrimental effect to the physical environment or the neighborhood in connection with the proposal.

There are no other means feasible for the Applicants to pursue, other than the variances. The RF Justification Report, Alternative Site Analysis, Setback Report and other materials submitted herewith confirm that the height proposed is the minimum height necessary for Verizon's service needs, and that the height proposed will allow opportunity for collocation at the Facility. Therefore the benefit of the height proposed to provide the necessary service to Verizon's users cannot be achieved without the requested variance.

Moreover, the variances requested are not substantial in light of the nature of the area and the minimal adverse effect which the variances would have on adjoining properties. See Terry Rice, McKinney's Practice Commentaries, Town Law §267-b (McKinney's 1997-98 Supp.).

The Facility is proposed on a heavily vegetated property, located physically far from any residences (well over the height of the tower).

For the reasons stated above, the Facility will not have an adverse effect or impact on the physical conditions in the neighborhood.

In addition, the need for the proposed variances is clearly not self-created, but rather due to physical and technological factors outside the Applicants' control, which limit the locations in which the Facility can be installed and design of the Facility, required for Verizon to provide its mandated service.

Based on the foregoing, it is respectfully submitted that the Applicants have complied with the requirements for the grant of the requested area variances.

In support of the foregoing, we are pleased to enclose four copies of the following materials and one thumb drive with all documents contained thereon:

1. ZBA Application forms;
2. Vesting Deed with easements, covenants, and restriction;
3. Environmental Assessment Form with VEAF;
4. RF Justification Report;
5. RF Exposure Report;
6. Visual Resource Evaluation;
7. USFWS letters;
8. DEC Letter;
9. FAA Opinion Letter;
10. Collocation Commitment Letter;
11. Structural Letter;
12. SWPPP;

13. MS4 Acceptance;
14. SHPO Concurrence;
15. Alternative Site Analysis;
16. Generator Certification Letter;
17. Setback Report; and
18. Site Plan.

We thank you for your consideration, and look forward to discussing this matter at the next Zoning Board of Appeals meeting. If you have any questions or require any additional documentation, please do not hesitate to contact me at 914-333-0700.

Snyder & Snyder, LLP

By: 

Robert D. Gaudio

RDG:cae

Enclosures

cc: Homeland Towers  
Verizon Wireless

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UNITED STATES DISTRICT COURT  
SOUTHERN DISTRICT OF NEW YORK

-----x  
NEW YORK SMSA LIMITED PARTNERSHIP d/b/a/  
VERIZON WIRELESS, and HOMELAND TOWERS, LLC,

Plaintiffs,

DOCKET NO.:  
19-cv-10793 (PMH) (JCM)

-against-

THE TOWN OF CARMEL, THE TOWN OF CARMEL  
TOWN BOARD, THE TOWN OF CARMEL PLANNING  
BOARD, THE TOWN OF CARMEL ZONING BOARD  
OF APPEALS, THE TOWN OF CARMEL  
ENVIRONMENTAL CONSERVATION BOARD, and  
MICHAEL CARNAZZA THE TOWN OF CARMEL  
BUILDING INSPECTOR (in his official capacity),

Defendants.

-----x  
**STIPULATION OF SETTLEMENT AND CONSENT ORDER**

**WHEREAS**, the plaintiffs New York SMSA Limited Partnership d/b/a Verizon Wireless, and Homeland Towers, LLC (collectively, “Plaintiffs” or “Applicants”), commenced this action against defendants the Town of Carmel, the Town of Carmel Town Board (“Town Board”), the Town of Carmel Planning Board (“Planning Board”), the Town of Carmel Zoning Board of Appeals (“ZBA” or “Zoning Board”), the Town of Carmel Environmental Conservation Board (“Conservation Board”), and the Town of Carmel Building Inspector (in his official capacity) (“Building Inspector”), (collectively, “Town” or “Defendants”), seeking *inter alia* a Judgment and Order finding that Defendants’ denial of Plaintiffs’ request to: (i) install and maintain a public utility wireless telecommunications facility consisting of a 140-foot monopole designed to resemble a tree and a fenced compound for related equipment (“Casse Facility”) at the property located at 254 Croton Falls Road in the Town of Carmel, New York (“Casse Property”); and (ii) a public utility wireless telecommunications facility consisting of a 110-foot monopole designed to resemble a tree and a



fenced compound for related equipment (“Dixon Facility”) at the property located at 36 Dixon Road in the Town of Carmel, New York (“Dixon Property”), violated Plaintiffs’ rights under the Telecommunications Act of 1996 (“TCA”), as codified at 47 U.S.C. § 332(c) and § 253(a) and directing Defendants to immediately issue any and all local approvals necessary for Plaintiffs to install and operate the facilities that are the subject of this action;

**WHEREAS**, to avoid the delay, expense, inconvenience, and uncertainty of protracted litigation, Plaintiffs and Defendants previously agreed to settle this action pursuant to the terms and conditions set forth in a Stipulation of Settlement and Consent Order, so-ordered by the Court on May 20, 2020 (the “Prior Consent Order”);

**WHEREAS**, the parties reaffirm their respective approval of the Prior Consent Order, and have now agreed to modify the Prior Consent Order to the extent it pertains to the Casse Facility and a separate public utility wireless telecommunications facility including a monopole, a fenced compound with related equipment, and all necessary access and utilities (“Glenacom Facility”) at the property located at Walton Drive in the Town of Carmel, New York (“Glenacom Property”), as set forth herein this Amended Stipulation of Settlement and Consent Order (the “Amended Consent Order”) and as set forth in a separate settlement agreement executed by the parties on November 14, 2022 (the “Agreement”), the terms of which are incorporated by reference into this Amended Consent Order.

**WHEREAS**, Plaintiffs and Defendants, intending to be legally bound, have consulted with their counsel and the undersigned counsel herein have the requisite authority and approval to enter into this Amended Consent Order.

**NOW, THEREFORE, IT IS HEREBY STIPULATED AND AGREED BY  
PLAINTIFFS AND DEFENDANTS, AND ORDERED BY THE COURT THAT:**

1. The Town Board represents that it diligently considered the terms of this Amended Consent Order, took a hard look at all potential environmental impacts and issued a negative declaration pursuant to SEQRA, by majority vote of Town Board members with no conflict of interest, to reaffirm its approval of the Prior Consent Order and to approve this Amended Consent Order.

2. The parties further acknowledge that Applicants submitted an application for site plan and special permit approval for the Glenacom Facility to the Planning Board, on or about January 24, 2020, and conducted the necessary visual analysis of the Glenacom Facility in February 2020 (the "Prior Filing").

3. The Town Board represents that it satisfied any and all Open Meetings Law requirements by posting on its website the Prior Filing documents prior to entering into this Amended Consent Order. All other documents related to Town Board's approval of the Amended Consent Order, if any, are confidential and/or attorney-client privileged.

4. Plaintiffs shall supplement the Prior Filing by filing additional materials with the Planning Board and the Zoning Board ("Supplemental Filings"), as set forth in the Agreement, and the Planning Board and Zoning Board will process the Supplemental Filings in accordance with all applicable laws and with the Agreement.

5. The Parties shall comply with the terms of the Agreement and the Court shall retain jurisdiction so as to enforce the Agreement. If the Town fails to approve Plaintiffs' applications or fails to issue any required permits or approvals for the construction of the Glenacom Facility for any reason, Plaintiffs shall not be bound by the terms of this Amended Consent Order or the terms of the Prior Consent Order, to the extent that it pertains to the Casse Facility and the Glenacom Facility,

and shall have the right to reinstate this action and/or to file an amended and/or supplemental complaint to add and/or modify any allegations and/or causes of action pertaining to the Casse Facility and/or the Glenacom Facility.

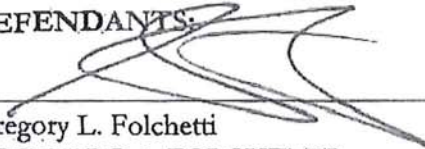
6. This Amended Consent Order shall not be construed to create rights in, or grant any cause of action to, any third party not a party to this Amended Consent Order.

7. Plaintiffs and Defendants acknowledge that this Amended Consent Order was the product of negotiation by all parties through their counsel, including negotiation as to the language set forth herein, and as such, to the extent there is any issue with respect to any alleged, perceived or actual ambiguity in this Amended Consent Order, the ambiguity shall not be resolved based on who drafted the Amended Consent Order. The obligations of this Amended Consent Order apply to and are binding upon the parties, and any successors and assigns or other entities or persons otherwise bound by law.

8. This Amended Consent Order shall be deemed a Type II action under the New York State Environmental Quality Review Act, as it is the action of a court. 6 N.Y.C.R.R. § 617.5(c)(46).

9. The Court shall retain jurisdiction over this matter, including the enforcement of the Agreement, and the Plaintiffs or Defendants may, upon notice, move this Court to enforce this Amended Consent Order and/or the Agreement against any other party or any non-party.

**DEFENDANTS:**



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Gregory L. Folchetti  
COSTELLO & FOLCHETTI  
1875 Route Six  
Carmel, NY 10512  
T. (845) 225-1900  
*Attorneys for Defendants*

**PLAINTIFFS:**



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Robert D. Gaudio  
SNYDER & SNYDER LLP.  
94 White Plains Road  
Tarrytown, NY 10591  
T. (914) 333-0700  
*Attorneys for Plaintiffs*

Dated: November 14, 2022

**SO ORDERED:**



---

**The Honorable Philip M. Halpern  
United States District Judge**

Dated: White Plains, New York  
November 17, 2022

Form 8007 1-85 51 -Receipt and Sale Deed, with Covenant Against Grantor's Acts-Individual or Corporation.  
CONSULT YOUR LAWYER BEFORE SIGNING THIS INSTRUMENT-THE INSTRUMENT SHOULD BE USED BY LAWYERS ONLY.

T.T.  
D

Vol. 887. P. 026

THIS INSTRUMENT, made the 14th day of March, nineteen hundred and eighty-six  
BETWEEN

MAPLE HILL ESTATES, INC., a New York Corporation  
with offices at Maple Hill Drive, Mahopac,  
Putnam County, New York 10541

party of the first part, and

MAPLE HILL ESTATES HOMEOWNER'S ASSOCIATION, INC.,  
a Corporation formed under the Not-For-Profit  
Corporation Law of the State of New York, with its  
offices at Maple Hill Drive, Mahopac, Putnam County,  
New York 10541

party of the second part,

WITNESSETH, that the party of the first part, in consideration of ONE and no/100 (\$1.00)--  
dollars,

lawful money of the United States, and other good and valuable consideration paid  
by the party of the second part, does hereby grant and release unto the party of the second part, the heirs or  
successors and assigns of the party of the second part forever,

ALL that certain plot, piece or parcel of land, with the buildings and improvements thereon erected, situate,

lying and being in the Town of Carmel, County of Putnam and State of  
New York and designated as Lots 93 and 94 on certain maps  
entitled "Final Subdivision Plat of Maple Hill Estates", dated  
May 22, 1985, and filed in the Putnam County Clerk's Office on  
September 20, 1985, as Map Numbers 2078A and 2078B.

TOGETHER with the appurtenances and all the estate and rights  
the party of the first part in and to said premises;

SUBJECT TO the provisions of the Declaration of Covenants and  
Restrictions recorded in the Putnam County Clerk's Office,  
Division of Land Records on March 10, 1986, in Liber 886 Page  
166, as the same may be amended from time to time by instruments  
recorded in the Putnam County Clerk's Office, Division of Land  
Records, which provisions, together with any amendments thereto,  
shall constitute covenants running with the land and shall bind  
any person having at any time any interest or estate in the  
premises, as though such provisions were recited and stipulated  
at length herein;

SUBJECT TO the right hereby reserved by the party of the first  
part to make minor revisions of lot and garage lines and street  
and parking area lines from those shown on the Subdivision Map in  
order to preserve the natural topography of the land and to  
increase the size of the lots and garages shown thereon to  
accommodate the proposed building or buildings thereon, such  
right including but not being limited to: the right to subtract  
from the premises insubstantial portions thereof for the purpose  
of adding such portion to one or more of the lots or garages  
shown on the Subdivision Map; the right to shift, in an  
insubstantial manner, the location of one or more lots or garages  
on the Subdivision Map and the location of a building or  
buildings on any such lot; and the right to change, in an  
insubstantial way, the location of streets or parking areas shown  
on the Subdivision Map; in connection with which the party of the  
second part hereby covenants that it will, if requested, execute,

TAX MAP  
DESIGNATION

Dist.

Sec.

BL

Lot(s).

33997

FVUL 887 REF 028

~~TOGETHER with all right, title and interest, if any, of the party of the first part in and to any streets and roads abutting the above described premises to the center lines thereof;~~

~~TOGETHER with the appurtenances and all the estate and rights of the party of the first part in and to said premises;~~

**TO HAVE AND TO HOLD** the premises herein granted unto the party of the second part, the heirs or successors and assigns of the party of the second part forever.

~~This conveyance is made in the regular course of business of the party of the first part.~~

**AND** the party of the first part covenants that the party of the first part has not done or suffered anything whereby the said premises have been incumbered in any way whatever, except as aforesaid.

**AND** the party of the first part, in compliance with Section 13 of the Lien Law, covenants that the party of the first part will receive the consideration for this conveyance and will hold the right to receive such consideration as a trust fund to be applied first for the purpose of paying the cost of the improvement and will apply the same first to the payment of the cost of the improvement before using any part of the total of the same for any other purpose.

The word "party" shall be construed as if it read "parties" whenever the sense of this indenture so requires.

**IN WITNESS WHEREOF**, the party of the first part has duly executed this deed the day and year first above written.

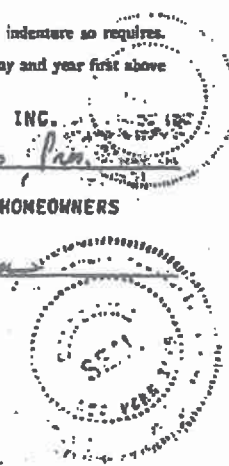
**IN PRESENCE OF:**

MAPLE HILL ESTATES, INC.

By 

MAPLE HILL ESTATES HOMEOWNERS ASSOCIATION, INC.

By 



STATE OF NEW YORK, COUNTY OF WESTCHESTER

On the 14th day of March 19 86, before me personally came

JOHN L. ARONS

to me known to be the individual described in and who executed the foregoing instrument, and acknowledged that executed the same.

who, being by me duly sworn, did depose and say that he resides at Carmel, N.Y., that he is the PRESIDENT of MAPLE HILL ESTATES, INC., the corporation described in and which executed the foregoing instrument; that he knows the seal of said corporation; that the seal affixed to said instrument is such corporate seal; that it was so affixed by order of the Board of Directors of said corporation, and that he signed his name thereto by like order.

STATE OF NEW YORK, COUNTY OF WESTCHESTER

On the 14th day of March 19 86, before me personally came LOIS K. GRUEN

to me known, who, being by me duly sworn, did depose and say that she resides at No. Chappaqua N.Y.

that she is the President of MAPLE HILL ESTATES HOMEOWNERS ASSOCIATION, INC., the corporation described in and which executed the foregoing instrument; that she knows the seal of said corporation; that the seal affixed to said instrument is such corporate seal; that it was so affixed by order of the board of directors of said corporation, and that she signed her name thereto by like order.

*Michelle Sargeant*

MICHELLE SARGEANT  
Notary Public, State of New York  
No. 471257  
Qualified in Westchester County  
Commission Expires March 30, 1987

Margin and Sale Book  
WITH COVENANT AGAINST GRANTOR'S ACTS

TITLE No. 7-86-86-112

MAPLE HILL ESTATES, INC.

TO

MAPLE HILL ESTATES HOMEOWNERS ASSOCIATION



VOL 887 PAGE 029  
STATE OF NEW YORK, COUNTY OF

On the day of 19 , before me personally came

to me known to be the individual described in and who executed the foregoing instrument, and acknowledged that executed the same.

instrument; that he, said subscribing witness, was present and saw execute the same; and that he, said witness, at the same time subscribed his name as witness thereto.

*Michelle Sargeant*  
MICHELLE SARGEANT  
Notary Public, State of New York  
No. 471257  
Qualified in Westchester County  
Commission Expires March 30, 1987

STATE OF NEW YORK, COUNTY OF

On the day of 19 , before me personally came

the subscribing witness to the foregoing instrument, with whom I am personally acquainted, who, being by me duly sworn, did depose and say that he resides at No.

that he knows to be the individual described in and who executed the foregoing instrument; that he, said subscribing witness, was present and saw execute the same; and that he, said witness, at the same time subscribed his name as witness thereto.

TM 147-4-1.-9300 and 9400  
SECTION  
BLOCK  
LOT  
COUNTY OR TOWN Putnam County, Town of Carmel  
TAX BILLING ADDRESS c/o Goodhue Banks Arons & Pickett, 126 Barker St. Mt. Kisco, N.Y. 10549  
Recorded At Request of Title Title Guarantee Company

GOODHUE BANKS ARONS & PICKETT  
Attorney at Law  
126 Barker St.  
P.O. Box 120  
Mt. Kisco, N.Y. 10549

RECEIVED ON THE 17 DAY OF MAR 19 86  
AT 3:48 PM IN RECORDING IN BOOK No. 887 OF DEEDS AT PAGE 26 AND EXAMINED

*[Signature]*  
CLERK

RECEIVED  
REAL ESTATE  
MAR 17 1986  
TRANSFER TAX  
PUTNAM COUNTY

11.00  
T-TAX  
CREDIT

PUTNAM COUNTY  
CLERK'S OFFICE  
MAR 19 1986

RIGHT OF WAY AGREEMENT.

DATE LIBER 156 003 381

4156 9381

THIS AGREEMENT made the 23rd, day of April, 1930 between  
LINCOLNDALE HEIGHTS, INC., a domestic corporation with principal  
place of business at 159 west 25th Street, New York City, grantor, and  
NEW YORK STATE ELECTRIC AND GAS CORPORATION a domestic  
principal place of business at Ithaca, New York, grantee, and to include when  
hereinafter used its successors and assigns,

WITNESSETH that the grantor in consideration of one dollar and other  
good and valuable consideration paid by the grantee, the receipt whereof is  
hereby acknowledged, does hereby grant, release and convey unto the grantee, its  
successors and assigns, a right of way for a single pole line upon, over and  
across its lands and property, situate in the Town of Carmel, Putnam County  
New York, and the Town of Somers, Westchester County, New York, known as Lincoln-  
dale Heights and lying between the lands of one Hillel Friedberg and lands of  
the Estate of David Berman, as surveyed across said lands by the grantee and  
described as follows:

BEGINNING at a point on the boundary between the property of said  
grantor and the David Berman Estate; said point being about fifty feet south  
of the stone wall marking the boundary between Putnam and Westchester Counties  
and running thence south  $87^{\circ} 35'$  east thirty feet to a stake; thence North  $82^{\circ}$   
 $56'$  East two hundred and seventy-one feet to a stake located about five feet  
south of said County boundary; thence south  $85^{\circ} 57'$  east one thousand two  
hundred and ninety five feet along said County boundary to a stake; thence  
south  $89^{\circ} 20'$  east nine hundred fifty eight feet along and across said County  
boundary to a stake located about thirty five feet north of said County boundary  
and about twenty-nine feet west of the boundary between the properties of  
said grantor William C. Wood; thence north  $11^{\circ} 22'$  east four hundred and twenty  
two feet running parallel to said boundary between said Grantor and Wood and  
about twenty-nine feet therefrom to a stake; thence north  $8^{\circ} 09'$  east three hun-  
dred and fifty feet and continuing about twenty-nine feet from said boundary  
between said grantor and Wood to a stake; thence south  $66^{\circ} 18'$  east one thousand  
nine hundred and two feet running parallel to said boundary between said  
grantor and wood and about twenty-five feet therefrom to a stake located ten  
feet west of the wall marking the west side of Lovell Street; thence south  $51^{\circ}$   
 $19'$  east nine hundred and ninety seven feet across Lovell Street and the pro-  
perty of said Grantor to a point on the boundary line between the properties of  
said grantor and Hillel Friedberg. said point being about one hundred feet  
north of said boundary between Putnam and Westchester Counties

TOGETHER with the right to erect, inspect, operate, replace, maintain  
and remove from time to time, on said right of way, wood poles only, with the pro-  
per wires, cross-arms and other fixtures or appurtenances used or adopted for the  
transmission of electric current for any purpose whatsoever, including telephone  
lines.



TOGETHER with the right to enter upon said right of way for purposes aforesaid and for making surveys

TOGETHER with the right to cut, trim and remove at any and all times such trees and underbrush upon said right of way within a distance of 25 feet each side of said wires as in the judgment of grantees may interfere with the construction or operation of its lines.

Said grantor reserves the right to use the lands occupied by right of way provided such use shall not interfere with or obstruct the rights herein granted

Except at the points of entry into the lands of the Grantor or within one hundred feet therefrom, the said grantee hereby covenants and agrees that it will at its own cost and expense, and upon reasonable notice, relocate such poles as may be necessary to conform to any road or street which may be constructed along said right of way, such relocation to be on a line approximately parallel with the present center line and not more than fifty feet therefrom, but in any case the Grantor may not require the grantee to relocate any poles to positions less than twenty five feet distant from the boundary line between the property of the grantor and the property now owned by William C. Wood.

This grant is made upon the express condition and the Grantee hereby covenants that it shall keep and hold the grantor its successors and assigns harmless and indemnify it against and all damage or injury to persons or property of the grantor or of others arising from, by reason, of, or in any manner resulting from the maintenance, operation, use or presence of the above granted right of way or the said poles or pole lines, whether resulting from the fault or negligence of the grantee, its agents or servants or otherwise.

The grantor hereby warrants the title to the rights above granted and that it will execute or procure any further necessary assurance of the titles to said premises.

IN WITNESS WHEREOF the grantor has hereunto set its hand and seal this 23rd day of April, 1930

Attest  
*Hellman* Glaser  
Secretary

LINCOLNDALE HEIGHTS INC (LS)  
By Henry Hellman  
President.

STATE OF NEW YORK )  
COUNTY OF WESTCHESTER :SS.:

On the 23rd day of April, in the year one thousand nine hundred and thirty before me personally came HENRY HELLMAN to me known, who, being by me duly sworn, did depose and say that he resides in Scarsdale N.Y. that he is the President of the LINCOLNDALE HEIGHTS Inc. the corporation described in and which executed the above instrument; that he knows the seal of said corporation; that the seal affixed to said instrument is such corporate seal; that it was so affixed by order of the board of directors of said corporation, that he signed his name thereto by like order.

MARIE E. FITZPATRICK  
Notary Public

Rec'd: 5/6/30



## RIGHT OF WAY:

AGREEMENT, made this Eleventh day of October, 1933, by and between LINCOLNDALE HEIGHTS, INC. with principal place of business at 79 West 45th Street, New York City of the City of New York County of New York, and State of New York (hereinafter called the Grantor), and the

NEW YORK STATE ELECTRIC & GAS CORPORATION a New York corporation, (hereinafter called the Grantee).

WITNESSETH: That in consideration of the mutual covenants herein contained and of the sum of One Dollar (\$1.00) in hand paid by the Grantee to the Grantor concurrently herewith, the receipt whereof is hereby acknowledged, the parties hereto hereby agree with each other as follows:

The Grantor hereby conveys to the Grantee, its successors and assigns, an option for an easement, right, privilege and right of way of the width of feet, upon, over and across the lands of the Grantor situated in the Town of Carmel, County of Putnam and State of New York and in the Town of Somers County of Westchester State of New York described as follows:

Being a right of way for three additional poles and necessary wires and fixtures, said poles to form H-frame structures and to be located on prior right of way granted by the grantor herein named to the New York State Electric and Gas Corporation by agreement dated April 23, 1930 and recorded in Putnam County Clerk's Office May 6, 1930 in Book 156 of Deeds page 361 and in Westchester County Registrar's Office May 1, 1930 in Liber 3030 of Deeds page 269; this agreement being supplemental thereto.

The exact location thereof to be selected by the Grantee after its final surveys have been made.

Together with the right to enter upon and erect, inspect, operate, replace, repair and perpetually maintain a line or lines of poles, and/or H-Frames with necessary wires, cross arms, guy wires, push braces and other usual fixtures and appurtenances used or adopted for the transmission of electric current for light, heat, power or any other purpose.

Together also with the right to trim, cut and remove at any and all times such trees and underbrush or other obstructions upon said right of way and upon a strip of land no feet in width along each side of said right of way as in the judgment of Grantee may interfere with or endanger said lines or any of their appurtenances when erected.

Together with the right to enter upon said land for the purpose of surveying the proposed route or routes for electric lines hereinabove referred to.

PROVIDED, however, any damage to the property of the Grantor (other than that caused by trimming, cutting and removing of trees and underbrush as hereinabove provided) caused by the Grantee, its successors and assigns, in maintaining or repairing said transmission line, shall be borne by the Grantee, its successors and assigns.

RESERVING, however, to the Grantor the right to cultivate the ground between said poles and beneath said wires, provided that such use shall not interfere with or obstruct the rights herein granted.

This agreement is made on the express condition that upon final acceptance thereof, evidenced either by the erection of poles and wires on said right of way or by written acceptance of the foregoing option, the further sum of Two hundred and 00/100 Dollars (\$200.00) shall be forthwith due and payable to the Grantor; that unless poles and wires shall be so erected on said right of way or payment therefor is made within ninety days from the date of this instrument, this agreement shall cease and determine and become null and void. If this agreement shall be accepted by such erection or by payment as aforesaid it shall constitute a complete and effective grant and conveyance of said easement, right, privilege and right of way.

The grantor hereby warrants the title to the rights above granted and that the same are free and clear of all liens and incumbrances, and that he will execute or procure any further necessary assurance of the title to said premises.

Each of the parties also binds the heirs, executors, administrators, successors and assigns of such party.

IN WITNESS WHEREOF, the parties hereto have duly executed this agreement the day and year first above written.

Witness: LINCOLNDALE HEIGHTS, INC. (L. S.)  
Attest: By Henry Hellman (L. S.)  
President

Peter H. Brandt  
H. M. Foster

STATE OF NEW YORK )  
COUNTY OF NEW YORK ) SS:

On the 11 day of October, in the year 1933 before me personally came Henry Hellman to me known, who being by me duly sworn, did depose and say that he resides in Scarsdale, N. Y.; that he is the President of the Lincoln Dale Heights, Inc., the corporation described in and which executed the above instrument; that he knows the seal of said corporation; and that the seal affixed to said instrument is such corporate seal; that it was so affixed by order of the Board of Directors of said corporation and that he signed his name thereto by like order.

PETER H. BRANDT ( )  
Commissioner of deeds, City of  
New York

STATE OF NEW YORK )  
COUNTY OF NEW YORK ) SS:  
CITY OF NEW YORK

I, Daniel E. Finn, Clerk of the County of New York, and also Clerk of the Supreme Court in and for said county,

DO HEREBY CERTIFY, That said Court is a Court of Record, having by law

Recd: 11/8/33

L.191 of 72

RIGHT OF WAY

RECEIVED FROM NEW YORK STATE ELECTRIC & GAS CORPORATION One Dollar (\$1.00) in consideration of which we hereby grant, convey and release unto said Company, its successors and assigns, the right, privilege and authority to construct, reconstruct, operate, maintain and at its pleasure remove its electric lines, or any part thereof including the necessary poles, wires and appurtenances, for conducting and distributing electricity for public and private use, as said Company may now or from time to time deem necessary, along, upon and across the highways which adjoin or are upon the property which we own or in which we have an interest situate, at Lincolndale Heights, on Teakettle Spout highway and on highway extending from said highway to Ashopee in the Town of Jermal, County of Putnam, State of New York, with the right to trim, now and from time to time, without further payment, any trees or brush along said line to a width of ten feet on both sides of the lines as from time to time maintained. The said Company shall pay for any other damages to said property for which the Company or its agents are responsible. Said damages to be ascertained by two disinterested free holders to be selected and paid one by each party: they to select a third in case of non-agreement, who shall be paid one-half by each party. This in addition includes right to place and maintain guy wires and anchors just off fence or back of highways on our property, where necessary to maintain poles located in the highways.

IN WITNESS WHEREOF, We have hereunto set our hand and seal the 24th day of June, in the year 1933.

Subscribed in my presence  
F. H. Gardinier

✓ LINCOLNDALE HEIGHTS Inc. (LS)  
By Henry Hellman, Pres. (LS)  
By President

STATE OF NEW YORK }  
COUNTY OF PUTNAM } SS:

On the 24th day of June, in the year 1933, before me personally came, Henry Hellman, to me known, who, being by me duly sworn, did depose and say that he resides in Scarsdale, N.Y. that he is the President of the Lincolndale Heights Inc., the corporation described in and which executed the above instrument; that he knows the seal of said corporation; that the seal affixed to said instrument is such corporate seal; that it was so affixed by order of the Board of Directors of said corporation and that he signed his name thereto by like order.

( ) F. H. GARDINIER  
Notary Public, Putnam County

Recorded Nov. 13th, 1933.  
At 11:14 A.M.

Walter F. Townsend CLERK

The Undersigned, hereinafter called the GRANTOR, being the owner of or having an interest in land situate in the Town of Carmel County of Putnam State of New York, fronting on the street or highway known as Union Valley Road and bounded westerly by the land of now or formerly David Parent and easterly by the land of A. Perez

In Consideration of \$1.00 paid by the Grantee, hereby grants and releases unto the New York State Electric & Gas Corporation, a corporation organized under the laws of the State of New York, having its principal office at 108 East Green Street, Ithaca, New York, herein called the GRANTEE, its successors and assigns, the right, privilege, and authority to construct, reconstruct, extend, operate, inspect, maintain, and at its pleasure, remove, a pole line with the necessary wires, cross arms, guy wires, braces and other fixtures or appurtenances used or adapted for the transmission and/or distribution of electric current for public or private use, upon and over said land and property and/or the highways abutting or running through said land. The said line to be constructed and maintained, now and from time to time as deemed necessary by Grantee, in, along and/or adjacent to the aforementioned Union Valley Road with the necessary anchor or tree guys.

Further with the right to trim, cut, and remove trees and brush to the extent necessary to clear said wires and pole line by at least six (6) feet.

Provided, however, that any damage (other than for trimming, cutting, or removing trees, as above provided) to the property of the Grantor, caused by the Grantee in constructing or repairing said line, shall be borne by the Grantee.

Dated this May 17th day of 1945

In Presence of:

(Subscribing Witness)
(Subscribing Witness)
(Subscribing Witness)
(Subscribing Witness)

Elizabeth B. Walton
Address: Van Natta Spont. Rd. Mahopac, N.Y.
(L.S.)
Address:
(L.S.)
Address:
(L.S.)
Address:

① (Subscribing Witness Acknowledgment)

State of New York }  
County of \_\_\_\_\_ } ss:

On this \_\_\_\_\_ day of \_\_\_\_\_  
19\_\_\_\_ before me personally came

the subscribing witness to the foregoing  
whom I am personally acquainted, who has  
sworn, did depose and say that he resides

that he knew \_\_\_\_\_

to be the individual described in and in  
foregoing instrument; that he, said witness  
was present and saw \_\_\_\_\_ do  
and that he, said witness, at the same time  
name as witness thereto.

(Notary Public)

NEW YORK  
Fee \$ 2.00

HARRY M. BARRETT, County Clerk.

A true copy of the original of the foregoing instrument recorded at request of  
N.Y. St. El. & Gas Corp. July 20, 1945 9:04 A. M.

\* COMP. THACA DOCUMENT FILE 2-11-45 EWC-12

### Right of Way

Line Riverside Etern  
PE. 18275 Parcel No. \_\_\_\_\_  
Auth. \_\_\_\_\_

Elizabeth B. Walton

TO  
NEW YORK STATE ELECTRIC & GAS CORPORATION

Dated May 17<sup>th</sup> 1945

State of New York } 203  
County of Potsdam } ss:

Recorded on the 20<sup>th</sup> day of  
July 1945

at 9:04 o'clock AM

In Book \_\_\_\_\_ of Deeds at  
Page \_\_\_\_\_ and examined.

(Clerk)  
RETURN TO  
DOCUMENT FILE  
NEW YORK STATE ELECTRIC & GAS CORP.  
ITHACA - NEW YORK

Approved: H. G. Simpson  
5/20/45

(Personal Acknowledgment)

State of New York }  
County of Putnam } ss:

On this 17<sup>th</sup> day of May  
1945 before me, the subscriber personally appeared  
Elizabeth B. Walton

to me personally known and known to me to be the same  
person described in and who executed the within instrument  
and duly acknowledged to me the execution of the  
same.

John M. Sloan  
(Notary Public)

REMARKS No. 152 Ch. 11-45  
6/17/45  
Sole Owner

USER 296 MAR 21 1945

GRANT OF EASEMENT

NY-P-198

STATE OF NEW YORK  
COUNTY OF PUTNAM

REC'D 405 PAGE 7

KNOW ALL MEN BY THESE PRESENTS: that the undersigned

TELEKETTLE SPOUT LAKES, INC., a New York Corporation, having  
its principal office at 191 Langham Street, County of Kings,  
City and State of New York

(hereinafter called Grantor, whether one or more), for and in consideration of the sum of TWO HUNDRED SIXTY-SIX  
and 00/100 Dollars (\$ 266.00 ) paid by ALGONQUIN GAS  
TRANSMISSION COMPANY, a Delaware corporation, Grantor, the receipt and sufficiency of which is hereby acknow-  
ledged, has hereby give, grant and convey unto Grantee, its successors and assigns, subject to the provisions hereinafter  
herein stated a permanent right of way and easement for the purpose of laying, constructing, maintaining, repairing, altering,  
altering, replacing, repairing and removing a pipeline or pipelines with valves, tie-overs and other appurtenant facilities,  
all of which shall be and remain the property of Grantee, for the transmission of natural gas and all by-products thereof or  
any liquids, gases or substances which can be transported through a pipeline; over, under, across, and upon the following  
described land situated in the Town of Carmel, County of Putnam, State of New York, to wit:

A certain tract or parcel of land situated in the Town of Carmel, conveyed to  
Teakettle Spout Lakes, Inc. by Homesite Associates Inc. by deed dated May 16, 1951  
and recorded in Deed Book 394, Page 398 in the Office of the Clerk of Putnam  
County.

It is hereby mutually understood and agreed that the grantor, its  
transferees and assigns, are hereby relieved of all liability and  
damages caused directly or indirectly by the existence of said pipeline,  
now or in the future; same being assumed by grantee, its transferees and  
assigns.

The Grantee shall have all other rights and benefits necessary or convenient for the full enjoyment or use of the rights  
herein granted, including but not limited to, the right to remove and to clear all rocks, trees, brush, logs, structures,  
and other obstructions, which might interfere with the right of way, and the free and full right of ingress and egress  
over and across said lands and other adjacent lands of the Grantor to and from said right of way and easement.

Any pipe shall be buried to such depth that it will not interfere with the ordinary cultivation of said land.  
Grantee, its successors and assigns shall be liable for physical damage which it causes by laying, repairing, maintaining,  
operating, or removing said pipeline or pipelines, to growing crops, timber, buildings and structures on Grantor's land. Said  
damages, if not mutually agreed upon, shall be ascertained and determined by three disinterested persons; one to be  
appointed by the undersigned Grantor, his successors, heirs or assigns; one by the Grantee, its successors or assigns; the  
third by the two disinterested persons aforesaid; and the award of such three persons or any two of such three persons  
shall be final and conclusive.

The rights, title and privileges herein granted may be sold, leased, assigned, pledged, and mortgaged in whole or in  
part, and shall be binding upon and inure to the benefit of the parties hereto, their respective heirs, executors, adminis-  
trators, successors, assigns and legal representatives. And the said Grantor covenants that he has not done or suffered  
anything whereby the said premises have been encumbered.

In the event Grantee lays more than one pipeline, Grantee shall pay to the then owner of the lands subjected to this  
easement the same consideration as that first stated above for each additional pipeline so laid upon said right of way.

It is mutually understood and agreed that the person securing this grant is without authority from Grantee to make  
any agreement in respect of the subject matter hereof not herein expressed.  
Grantor does not guarantee number of rods shown on survey.

IN WITNESS WHEREOF Grantor has hereunto set its hand and seal this 30th day  
of November, A. D., 1951

Approved by: \_\_\_\_\_ L. S.  
ALGONQUIN GAS TRANSMISSION COMPANY  
by \_\_\_\_\_ L. S.  
Sand Agent.

TELEKETTLE SPOUT LAKES, INC.  
By \_\_\_\_\_ L. S.  
President-Secretary

ATTEST:  
Secretary

In consideration of \$1.00 and other considerations, I, the undersigned, hereby join in the execution of the above and  
foregoing grant and consent to the enjoyment by the Grantee therein of the rights granted by said grant.

Dated this \_\_\_\_\_ day of \_\_\_\_\_, A. D., 1951

\_\_\_\_\_ L. S.  
Tenant





8  
STATE OF NEW YORK  
COUNTY OF

INDIVIDUAL

On the \_\_\_\_\_ day of \_\_\_\_\_, 195\_\_\_\_, before me came

Individuals described in and who executed the foregoing instrument, and they severally acknowledged that they executed the same.

Notary Public

STATE OF NEW YORK  
COUNTY OF

INDIVIDUAL

On the \_\_\_\_\_ day of \_\_\_\_\_, 195\_\_\_\_, before me came

Individuals described in and who executed the foregoing instrument, and they severally acknowledged that they executed the same.

Notary Public

PUTNAM COUNTY

DEC. 8 1957

Recorded in the Clerk's Office in the County of Putnam on the 6 day of December 1957 at 12 hours and 20 minutes of the afternoon of said day in Book No. 405 of said County on page 7 and compared

Presented in office with Certificate and admitted to record at \_\_\_\_\_ o'clock \_\_\_\_\_ M.  
Clerk \_\_\_\_\_ Court of \_\_\_\_\_

STATE OF NEW YORK  
34

TO  
ALGONQUIN GAS TRANSMISSION COMPANY  
601 Connecticut Blvd.  
East Hartford, Conn.  
GRANT OF EASEMENT

CORPORATE

STATE OF NEW YORK  
COUNTY OF Putnam

1st December 1957  
Arthur H. Brewer  
to me known, who, being by me duly sworn, did depose and testify that he is the President of the Algouquin Gas Transmission Co., Inc., the corporation described in and which executed the foregoing instrument, that he knows the seal of said corporation; that the seal affixed to said instrument is such corporate seal; that it was executed by vote of the Board of Directors of said corporation, and that he signed the same in and to the name of said corporation.

ARTHUR SIMONE  
Notary Public, State of New York  
Qualified in Putnam County No. 200  
Commission Expires March 31, 1958

Arthur H. Brewer  
Notary Public

**Easement**

NY 870 ser 349

This Instrument is made this 1st day of August, 1955, between Maple Hill Estates, Inc.

having an office at 126 Barker Street, P. O. Box 120  
Rt. 1150, New York 10549 hereinafter called the Grantor, being the owner of or having an  
interest in land situate in the Town of Cornwall, County of Fulton  
State of New York, fronting on the east or highway known as Union Valley Road  
and bounded easterly in part by lands of New York State Electric & Gas Corporation and westerly in part by the  
lands of Roads and being more fully described in a deed from  
Teakettle Lake Estates

dated March 20, 1955, and recorded in the Fulton County Clerk's office in Book 643  
of Deeds at Page 202, for and in consideration of the sum of \$1.00 (One and 00/100 Dollars)

the receipt of which is hereby acknowledged and the further consideration to be paid or tendered as hereinafter provided, does  
hereby grant and convey unto the NEW YORK STATE ELECTRIC & GAS CORPORATION, a corporation organized under  
the laws of the State of New York, having an office at Town of Dryden (no street address), County of Tioga, State of New  
York, hereinafter called the Grantee, its successors and assigns forever, the right, privilege and authority to construct, reconstruct,  
relocate, operate, inspect, maintain, repair, replace, and at its pleasure remove any poles, towers or lines of poles, lines of towers,  
supporting structures, cables, crossarms, overhead and underground wires, guys, braces, communication facilities, and other fixtures  
or appurtenances which the Grantee shall acquire now and from time to time for the transmission and/or distribution of electric  
current for public or private use, in, upon, over, under and across said land.

The easement and right of way hereby granted and released is 35 feet in width throughout its extent, situate,  
lying and being as follows:

**BEGINNING** at the southeast corner of lands now or formerly of Roads and the southwest  
corner of lands of the grantor herein in the line of lands now or formerly of the  
New York State Electric & Gas Corporation; thence from said point of beginning along  
Roads N 02° 21' 50" E, 85.64 feet to a point; thence through lands of the grantor  
herein S 81° 12' 29" E, 1,636.60 feet to a point in the line of lands shown on map  
entitled "Amended Map of Teakettle Spout Lake at Mahopac Section A", filed map  
3350, recorded January 30, 1947; thence along the same line S 01° 12' 30" W, 85.31 feet  
to a point being the southeasterly corner of lands of the grantor herein; thence  
along the southerly line of lands of the grantor herein S 81° 12' 29" W, 1,636.37 feet  
to the point and place of beginning.

Together with fee ingress and egress for all of the above purposes including the right now and from time to time to trim,  
cut, burn and remove by manual, mechanical or chemical means trees and brush and other obstructions within said easement or  
right of way.

Provided, however, that any damage (other than for trimming, cutting or removing trees, as above provided) to the  
property of the Grantor, caused by the Grantee in constructing or repairing said line or lines, shall be borne by the Grantee.

Reserving, however, to the Grantor, the right to cultivate the ground between said poles, towers and supporting  
structures and beneath said wires and fixtures and the right to cross and access said easement and right of way provided that  
such use of said ground shall not interfere with, obstruct or endanger any rights granted or shall not disturb the  
grade of said ground as it now exists, and provided that no structure shall be erected, and no excavating, mining or blasting  
shall be undertaken within the limits of the right of way without written consent of the Grantee. Grantee, in said use  
of said ground shall maintain a clearance of 10 feet or more from Grantee's aerial wires with equipment, merchandise  
or other objects.

The Grantor, except the obligation of the Grantee to pay any consideration payable hereunder in lieu of any vendor's  
lien to respect the same.

The Grantor, hereby warrants, the title to the rights above granted and that the same are free and clear of all liens  
and encumbrances, except as may be herein expressly shown, as follows:

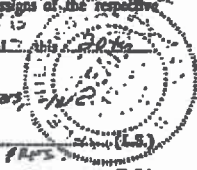
Mortgages between Maple Hill Estates, Inc. as mortgagor, and Teakettle Lake  
Estates and Westchester Federal Savings Bank, as mortgagee.

and that the Grantor will execute or procure any further necessary assurances of the title to said premises as may be required  
by the Grantee.

This instrument shall be binding on the respective heirs, executors, administrators, successors and assigns of the respective  
parties hereto.

In Witness Whereof, the Grantor, by his hand and seal, this 1st day of AUGUST, 1955.

In Presence of:  
BY: John L. [Signature]  
(L.S.)  
(L.S.)  
(L.S.)  
(L.S.)



29317

NY 870 ser 349

**Enactment**

Loc. Cornell - Kingdale  
 Auth. 11055-920 Form No. 28D-1

Maple Hill Estates, Inc.

TO  
**NEW YORK STATE ELECTRIC  
 & GAS CORPORATION**

Dated AUGUST 20, 1985

State of New York  
 County of \_\_\_\_\_

Recorded on the \_\_\_\_\_ day of \_\_\_\_\_, 19\_\_\_\_

at \_\_\_\_\_ of the County of \_\_\_\_\_

in Book \_\_\_\_\_ of Deeds at \_\_\_\_\_

Page \_\_\_\_\_ and checked \_\_\_\_\_

(Check)

CAPL 8700-110 3540

**(Personal Acknowledgment)**

State of New York  
 County of \_\_\_\_\_

On this \_\_\_\_\_ day of \_\_\_\_\_, 19\_\_\_\_, before me, the subscriber, personally appeared \_\_\_\_\_

\_\_\_\_\_

to me personally known and known to me to be the same person described in and who executed the within Instrument and duly acknowledged to me the execution of the same.

(Notary Public)

**REMARKS**

Paid from Working Fund \_\_\_\_\_ Office \_\_\_\_\_

Ch. No. \_\_\_\_\_ Amt. \_\_\_\_\_ Date \_\_\_\_\_

Ch. No. \_\_\_\_\_ Amt. \_\_\_\_\_ Date \_\_\_\_\_

RETURN TO

New York State Electric & Gas Corp.  
 134 Main Street - Brewster, N. Y.  
 Attention: **E. J. FREETH**

**(Subscribing Witness Acknowledgment)**

State of New York  
 County of \_\_\_\_\_

On this \_\_\_\_\_ day of \_\_\_\_\_, 19\_\_\_\_, before me personally came \_\_\_\_\_

\_\_\_\_\_

the subscribing witness to the foregoing Instrument, with whom I am personally acquainted, who being by me duly sworn, did depose and say that he resides at \_\_\_\_\_

in the \_\_\_\_\_ of \_\_\_\_\_ that he knew \_\_\_\_\_

to be the individual described in and who executed the foregoing Instrument; that he, said subscribing witness, was present and saw \_\_\_\_\_ execute the same; and that he, said witness, at the same time, subscribed in \_\_\_\_\_ to witness thereto.

(Notary Public)

PUTNAM COUNTY CLERK'S OFFICE  
 106 130  
 106 130

**(Corporate Acknowledgment) (With Seal)**

State of New York  
 County of WESTHURST

On this 20th day of AUGUST, 1985, before me came JOHN L. ARINS

\_\_\_\_\_

to me personally known, who being by me duly sworn, did depose and say that he resides at CAROLLA

NEW YORK

in the COUNTY

of PUTNAM

and that he is PRESIDENT

of MAPLE HILL ESTATES, INC.

the corporation described in and which executed the above Instrument; that he knows the seal of said Corporation; that the seal affixed to said Instrument is such corporate seal; that it was so affixed by order of the Board of Directors of said Corporation, and that he signed it in accordance therewith by the order.

*Michael Sargent*  
 (Notary Public)

PUTNAM COUNTY CLERK'S OFFICE  
 RECEIVED ON THE 30th DAY OF OCT 1985  
 11 30 AM '85  
 BOOK No. 870  
 AT PAGE 349 AND EXHIBIT

*Joseph A. ...*  
 CLERK

FD-302 (REV. 5-22-64)

### Easement

THE UNDERSIGNED, hereinafter called the Grantor(s), being the owner(s) of or having an interest in land situate in the Town of Cornwall County of Putnam State of New York, fronting on the street or highway known as Rte. Ora Boulevard and bounded westerly in part by the land of Parent and southerly by the land of New York State Electric & Gas Corp.

In consideration of One Dollar (\$1.00) and other valuable consideration, the receipt whereof is hereby acknowledged, hereby grants and releases unto NEW YORK STATE ELECTRIC & GAS CORPORATION (the Grantee), a corporation organized under the laws of the State of New York, having an office in the Town of Dryden (no street address), County of Tompkins, State of New York, its successors, assigns, by the Grantor.

A PERPETUAL EASEMENT AND RIGHT OF WAY, in, through, under, and to the extent necessary, upon and over said parcel of land for the purpose of installing electric cables, vaults, pipes, ducts, conduits and other necessary fixtures and appurtenances, including transformers and switching equipment, as may be used or adopted for the transmission and/or distribution of underground electric current for public or private use, with the right, privilege and authority now or at any time hereafter, to install, construct, operate, repair, inspect, maintain, amend, and at its pleasure remove such facilities, together with the right of ingress and egress to said facilities for all of the above purposes.

The easement and right of way granted and released is ten (10) feet in width throughout its extent, situate, lying, and being as follows:

The centerline of said Easement and right of way to begin at a point on Grantor's land, situate a distance of approximately eighty five (85) feet northerly of Grantor's water treatment plant and easterly of Grantor's roadway, thence extending in a southerly direction in, through, under and to the extent necessary upon and over Grantor's land a distance of approximately ten (10) feet to a point; said point being approximately seventy five (75) feet northerly of Grantor's waste treatment plant.

PROVIDED HOWEVER, that any damage done by the Grantee to the property of the Grantor, while constructing, repairing, inspecting, removing or extending its facilities, shall be borne by the Grantee.

RESERVING, HOWEVER, to the Grantor(s), the right to cross and re-cross, and make such other uses of said easement and right of way area as will not interfere with, obstruct or endanger any rights as aforesaid granted and which shall not disturb the grade of the ground of said easement and right of way area.

AND FURTHER PROVIDED, that no structure shall be erected and no excavating, mining or blasting shall be undertaken within the limits of said easement and right of way without the written consent of the Grantor.

IN WITNESS WHEREOF, the Grantor has hereunto set its hand and seal this 17th day of October, 1985.

IN PRESENCE OF:  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

MAPLE HILL ESTATES, INC. (L.S.)  
 By: [Signature]  
 Address: 125 Barker Street  
Mt. Kisco, New York 10549  
 \_\_\_\_\_  
 Address: \_\_\_\_\_



29507

xw-7 4/77

BOOK 871 PAGE 230

Easement

Maple Hill Estates LTD  
Auk. 11055-300 Parcel No. 390-53  
Area Cont. Cont. No. 11-70  
Construction W. C. No. 11825-4

Maple Hill Estates, Inc.

TO  
NEW YORK STATE ELECTRIC  
& GAS CORPORATION

Dated October 17, 1985

State of New York  
County of Westchester

Recorded on the \_\_\_\_\_ day of \_\_\_\_\_ 19\_\_\_\_  
at \_\_\_\_\_ o'clock \_\_\_\_\_ M.  
in Book \_\_\_\_\_ of Deeds of \_\_\_\_\_  
and executed.

*[Signature]*  
(Clerk)

(Personal Acknowledgment)

State of New York  
County of \_\_\_\_\_ ss:  
On this \_\_\_\_\_ day of \_\_\_\_\_  
19\_\_\_\_ before me, the undersigned, personally appeared \_\_\_\_\_

to me personally known and known to me to be the same person, identified to me and who executed the within instrument and duly acknowledged to me the execution of the same.

(Notary Public)

REMARKS

*[Signature]*

Fold from Working Proof \_\_\_\_\_ Office  
Ch. No. \_\_\_\_\_ Art. \_\_\_\_\_ Date \_\_\_\_\_  
Ch. No. \_\_\_\_\_ Art. \_\_\_\_\_ Date \_\_\_\_\_  
Consideration on this document is less than \$500.00.

RETURN TO  
CORPORATE DOCUMENT DEPARTMENT  
NEW YORK STATE ELECTRIC & GAS CORP.  
POST OFFICE BOX 287  
ITHACA, NEW YORK 14850

OCT 28 1985

(Subscribing Witness Acknowledgment)

State of New York  
County of \_\_\_\_\_ ss:  
On this \_\_\_\_\_ day of \_\_\_\_\_  
19\_\_\_\_ before me personally came \_\_\_\_\_

the subscribing witness to the foregoing instrument, with whom I am personally acquainted, who being by me duly sworn, did depose and say that he resides at \_\_\_\_\_

in the \_\_\_\_\_  
of \_\_\_\_\_  
that he knew \_\_\_\_\_

to be the individual described in and who executed the foregoing instrument; that he, said subscribing witness, was present and saw \_\_\_\_\_ execute the same; and that he, said witness, at the same time, subscribed his name to witness thereto.

(Notary Public)

RECEIVED  
\$ 500.00  
REAL ESTATE  
NOV 4 1985  
TRANSFER TAXES  
PUTNAM COUNTY

(Corporate Acknowledgment With Seal)

State of New York  
County of Westchester ss:  
On this 17th day of October  
19 85, before me came \_\_\_\_\_

John L. Arons  
to me personally known, who, being by me duly sworn, did depose and say that he resides at \_\_\_\_\_  
Cherry Hill Road

in the \_\_\_\_\_  
Town of \_\_\_\_\_  
County of \_\_\_\_\_

and that he is President  
of Maple Hill Estates, Inc.

the corporation described in and which executed the above instrument that he knows the seal of said Corporation; that the seal affixed to said instrument is such corporate seal; that it was so affixed by order of the Board of Directors of said Corporation, and that he signed his name thereto by the order.

*[Signature]*  
(Notary Public)

DEBRA A. DRUCKE  
Notary Public, State of New York  
Qualified to Receive Oaths  
My Commission Expires March 30, 1986

PUTNAM COUNTY CLERK'S OFFICE  
RECEIVED ON THE 4 DAY OF OCT 1985  
AT 3:24 P.M. IN RECORDS IN  
BOOK No. 871 OF 584 PAGES  
AT PAGE 229 AND EXAMINED

*[Signature]*  
CLERK

### Easement

THE UNDERSIGNED, hereinafter called the Grantor(s), being the owner(s) of or having an interest in land situate in the Town of Cornwall of Cornwall County of Putnam State of New York, fronting on the street or highway known as Via Ora Boulevard and bounded westerly in part by the land of Parent and southerly by the land of New York State Electric & Gas Corp.

In consideration of One Dollar (\$1.00) and other valuable consideration, the receipt whereof is hereby acknowledged, hereby grants and releases unto NEW YORK STATE ELECTRIC & GAS CORPORATION (the Grantee), a corporation organized under the laws of the State of New York, having an office in the Town of Dryden (no street address), County of Tompkins, State of New York, its successors, assigns, by the Grantee,

A PERPETUAL EASEMENT AND RIGHT OF WAY, in, through, under, and to the extent necessary, upon and over said parcel of land for the purpose of installing electric cables, vaults, pipes, ducts, conduits and other necessary fixtures and appurtenances, including transformers and switching equipment, as may be used or adopted for the transmission and/or distribution of underground electric current for public or private use, with the right, privilege and authority now or at any time hereafter, to install, construct, operate, repair, inspect, maintain, extend, and at its pleasure remove such facilities, together with the right of ingress and egress to said facilities for all of the above purposes.

The easement and right of way granted and released is ten (10) feet in width throughout its extent, situate, lying, and being as follows:

The centerline of said Easement and right of way to begin at a point on Grantor's land, situate a distance of approximately eighty five (85) feet westerly of Grantor's waste treatment plant and easterly of Grantor's roadway, thence extending in an easterly direction in, through, under and to the extent necessary upon and over Grantor's land a distance of approximately ten (10) feet to a point; said point being approximately seventy five (75) feet westerly of Grantor's waste treatment plant.

PROVIDED HOWEVER, that any damage done by the Grantee to the property of the Grantor, while constructing, repairing, inspecting, removing or extending its facilities, shall be borne by the Grantee.

RESERVING, HOWEVER, to the Grantor(s), the right to cross and re-cross, and make such other uses of said easement and right of way area as will not interfere with, obstruct or endanger any rights as aforesaid granted and which shall not disturb the grade of said easement and right of way area.

AND FURTHER PROVIDED, that no structure shall be erected and no excavating, mining or blasting shall be undertaken within the limits of said easement and right of way without the written consent of the Grantee.

IN WITNESS WHEREOF, the Grantor sa. s. hereunto set its hand and seal this 17th day of October, 1985

IN PRESENCE OF:

MAPLE HILL ESTATES, INC.  
 BY: [Signature] (L.S.)  
 Address: 128 BARKER STREET  
MT. KISCO, New York 10549



Address: \_\_\_\_\_

22508 538

BOOK: 871: PAGE 232

**Easement**  
Ltr: Maple Hill Estates Ltd  
Auth: 11085-200 Parcel No: 380-54  
Area Cont Center No: 11-70  
Construction W. C. No: 11832-4

Maple Hill Estates, Inc.  
TO  
**NEW YORK STATE ELECTRIC  
& GAS CORPORATION**  
Date: October 17, 1985

State of New York )  
County of Putnam ) ss:  
Recorded on the 4 day of  
November 1985  
at 3:24 PM o'clock P.M.  
In Book 8-11 of Deeds of  
Page 29 and certified  
[Signature]  
(Clerk)

**(Personal Acknowledgment)**  
State of New York )  
County of Putnam ) ss:  
On this 17th day of October  
1985, before me, the undersigned, personally appeared  
[Signature]  
to me personally known and known to me to be the same  
person described in and who executed the within instrument  
and duly acknowledged to me the execution of the same.  
[Signature]  
(Notary Public)

**REMARKS**  
RF  
Paid from Working Fund \_\_\_\_\_ Office  
Cl. No. \_\_\_\_\_ Amt. \_\_\_\_\_ Date \_\_\_\_\_  
Cl. No. \_\_\_\_\_ Amt. \_\_\_\_\_ Date \_\_\_\_\_  
Contribution on this document is less than \$100.00.

RETURN TO  
**CORPORATE DOCUMENT DEPARTMENT**  
NEW YORK STATE ELECTRIC & GAS CORP.  
POST OFFICE BOX 107  
ITHACA, NEW YORK 14850

**(Subscribing Witness Acknowledgment)**  
State of New York )  
County of Putnam ) ss:  
On this 17th day of October  
1985, before me personally came  
[Signature]  
the subscribing witness to the foregoing instrument, with  
whom I am personally acquainted, who being by me duly  
warned, did depose and say that he makes it  
in the \_\_\_\_\_  
of \_\_\_\_\_  
that he knew \_\_\_\_\_  
to be the individual described in and who executed the  
foregoing instrument; that he, said subscribing witness,  
was present and saw \_\_\_\_\_ execute the same;  
and that he, said witness, at the same time, subscribed  
his name as witness therein.  
[Signature]  
(Notary Public)

State of New York )  
County of Westchester ) ss:  
On this 17th day of October  
1985, before me came  
John J. Adams  
to me personally known, who, being by me duly sworn, did  
depone and say that he resides at  
Cherry Hill Road  
in the Town  
of Carmel  
and that he is President  
of Maple Hill Estates, Inc.  
the corporation described in and which executed the above  
instrument that he knows the seal of said Corporation;  
that the seal affixed to said instrument is such corporate seal;  
that it was so affixed by order of the Board of Directors of  
said Corporation, and that he signed his name thereto  
by the order.  
[Signature]  
(Notary Public)

**(Corporate Acknowledgment With Seal)**  
State of New York )  
County of Westchester ) ss:  
On this 17th day of October  
1985, before me came  
John J. Adams  
to me personally known, who, being by me duly sworn, did  
depone and say that he resides at  
Cherry Hill Road  
in the Town  
of Carmel  
and that he is President  
of Maple Hill Estates, Inc.  
the corporation described in and which executed the above  
instrument that he knows the seal of said Corporation;  
that the seal affixed to said instrument is such corporate seal;  
that it was so affixed by order of the Board of Directors of  
said Corporation, and that he signed his name thereto  
by the order.  
[Signature]  
(Notary Public)

[Signature]  
(Notary Public)  
DEBRA A. DRAKE  
Notary Public, State of New York  
Qualified in Orange County  
NY Expiration Expires March 30, 1986  
**RECEIVED**  
S. HASSINER  
REAL ESTATE  
NOV 4 1985  
TRANSFER BOOKS  
PUTNAM COUNTY

OCT 28 1985  
NOV 4 3 24 PM '85  
PUTNAM COUNTY

UNDERGROUND LINE EASEMENT

THIS INSTRUMENT made the 17th day of October 1955 by and between Maple Hill Estates, Inc., having an office at 126 Barker Street, Town/Village of Mount Kisco, County of Westchester, State of New York, hereinafter called the "Grantors", and NEW YORK STATE ELECTRIC & GAS CORPORATION, a public service corporation of the State of New York, having its principal office at Town of Dryden (no street address), County of Tompkins, State of New York, and the NEW YORK TELEPHONE COMPANY, a corporation of the State of New York, having its principal office at 1095 Avenue of The Americas, New York, N.Y., together hereinafter referred to as the "Companies".

WITNESSETH

That the Grantors, in consideration of One Dollar (\$1.00) and other valuable consideration paid by the Companies, the receipt whereof is hereby acknowledged, has granted and released and does hereby grant and release to the Companies, their successors and assigns, the exclusive and permanent right of way and easement to install, construct, extend, build, replace, relocate, operate, repair, maintain, renew and at their pleasure remove, underground street lighting, electric, gas and communication systems, including cables, conduits, wires, pedestals, closures, handholes, transformers, switching equipment, gas pipe and pipelines and such other appurtenant or supporting apparatus, structures or markers as the Companies, or such assignees as the Companies may elect, may now or shall from time to time hereafter deem necessary for the transmission and distribution of electricity and gas and the rendition of communication services upon, aboveground, under, through and across strips of land ten (10) feet in width owned by Grantors situate in Town of Carmel, County of Putnam, State of New York, the centerline of said easement strip described on Exhibit "A", attached hereto and made a part hereof, including the right to extend lateral service lines to all buildings now or hereafter constructed upon lots abutting said easement strip with the further right to cut roots or remove any trees, shrubs, or other obstructions within or adjacent to the easement area herein described, as shall be reasonably necessary to keep cables, conduits, pipes, wires and other appurtenant apparatus free from interference, together with the right of way and easement for the passage of man, vehicles and machines as shall be deemed necessary by the Companies for all the above purposes.

29509



ENCL 871 PAGE 234

It being the understanding of the parties hereto that the exclusive and permanent right of way and easement above described and herein conveyed is intended to prohibit the longitudinal or parallel occupancy of said easement strip and surface or subsurface structures or excavating, mining or blasting within the limits of said easement and right of way, without the prior written consent of the Companies; but it is not intended to prohibit crossings of said easement strip, or other uses of said easement and right of way area, so long as said crossings or other uses do not interfere with the operation and maintenance of the Companies' facilities, or damage or endanger such facilities.

The Grantors further agree to include an adequate reference to the easement herein granted and any subordination agreement referable thereto (1) in any Declaration duly executed and recorded in accordance with Article 9B of the Real Property Law, and (2) in any Deed given under said Article 9B, or otherwise.

The cost of any damage done by the Companies to the property of the Grantors while installing, constructing, extending, replacing, relocating, operating, repairing, maintaining, renewing or removing their facilities shall be borne by the Companies, excluding paved, curbed and/or landscaped areas created prior to the Companies initial installations.

Grantors agree with the Companies, on behalf of themselves, their successors and assigns, and as a covenant running with the land, that the existing grade following the installation of the Companies' facilities will remain undisturbed and unchanged.

TO HAVE AND TO HOLD the rights hereby unto the said Companies, their successors and assigns, forever.

IN WITNESS WHEREOF, the Grantors have hereunto set their hands and seals this 17th day of October, 1985.

MAPLE HILL ESTATES, INC.

By *J. Williams* President



EXHIBIT "A"

The centerline of said easement strip and right of way to be located as follows:

Beginning at the Companies' pole numbered 4 of line number 1897, situated off the southerly side of Kia Ora Boulevard on Grantor's land, thence extending in a southwesterly direction in, through, under and to the extent necessary upon and over Grantor's land a distance of one hundred seventy (170) feet to the Companies' junction cabinet numbered U1 of line number 4020 where the said easement strip diverts in two directions described as follows:

Direction No. 1

Beginning at the aforementioned Companies' junction cabinet numbered U1 of line number 4020, thence extending in a westerly direction in, through, under and to the extent necessary upon and over Grantor's land a distance of approximately fifty (50) feet to the Companies' padmounted transformer numbered U1-1 of line number 4020; said Companies' padmounted transformer being easterly of Unit Number 24.

Direction No. 2

Beginning at the aforementioned Companies' junction cabinet numbered U1 of line number 4020, thence extending in a southerly direction in, through, under and to the extent necessary upon and over Grantor's land a distance of approximately two hundred twenty five (225) feet to the Companies' junction cabinet numbered U2 of line number 4020, where the said easement strip diverts in three directions described as follows:

Direction No. 2A

Beginning at the aforementioned Companies' junction cabinet numbered U2 of line number 4020, thence extending in a westerly direction in, through, under and to the extent necessary upon and over Grantor's land a distance of approximately one hundred sixty (160) feet to a point; thence continuing in a northwesterly direction in, through, and under and to the extent necessary upon and over Grantor's land a distance of approximately sixty (60) feet to the Companies' padmounted transformer numbered U2-1 of line number 4020; said Companies' padmounted transformer being southwesterly of Unit Number 33.

Encl. 871 MAC 236

Direction No. 2B

Beginning at the aforementioned Companies' junction cabinet numbered U2 of line number 4020, thence extending in an easterly direction in, through, under and to the extent necessary upon and over Grantor's land a distance of approximately eighty five (85) feet to the Companies' padmounted transformer numbered U1 of line number 4025, thence continuing in a northeasterly direction in, through, under and to the extent necessary upon and over Grantor's land a distance of approximately one hundred ninety five (195) feet to the Companies' padmounted transformer numbered U2 of line number 4025, thence continuing in a southeasterly direction in, through, under and to the extent necessary upon and over Grantor's land a distance of approximately seventy (70) feet to the Companies' padmounted transformer numbered U3 of line number 4025, thence continuing in a southerly direction in, through, under and to the extent necessary upon and over Grantor's land a distance of approximately two hundred thirty (230) feet to the Companies' padmounted transformer numbered U4 of line number 4025, thence continuing in a southwesterly direction in, through, under and to the extent necessary upon and over Grantor's land a distance of approximately fifty (50) feet to the Companies' padmounted transformer numbered U5 of line number 4025, said Companies' padmounted transformer being northerly of Unit Number 13.

Direction No. 2C

Beginning at the aforementioned Companies' junction cabinet numbered U2 of line number U4020, thence extending in a southwesterly direction in, through, under and to the extent necessary upon and over Grantor's land a distance of approximately two hundred twenty (220) feet to the Companies' junction cabinet numbered U3 of line number 4020, where the said easement strip diverts in two directions described as follows:

Direction No. 3

Beginning at the aforementioned Companies' junction cabinet numbered U3 of line number 4020, thence extending in a southwesterly direction in, through, under and to the extent necessary upon and over Grantor's land a distance of approximately one hundred ten (110) feet to the Companies' junction cabinet numbered U4 of line number 4020 where the said easement strip diverts in three directions described as follows:

Direction No. 3A

Beginning at the aforementioned Companies' junction cabinet numbered U4 of line number 4020, thence extending in a northerly direction in, through, under and to the extent necessary upon and over Grantor's land a distance of approximately forty (40) feet to a point; thence continuing in a westerly direction in, through, under and to the extent necessary upon and over Grantor's land a distance of approximately forty (40) feet to a point thence continuing in a northwesterly direction in, through, under and to the extent necessary upon and over Grantor's land a distance of approximately one hundred seventy five (175) feet to the Companies' padmounted transformer numbered U4-1 of line number 4020; said Companies' padmounted transformer being southwesterly of Grantor's clubhouse.

Direction No. 3B

Beginning at the aforementioned Companies' junction cabinet numbered U4 of line number 4020, thence extending in a westerly direction in, through, under and to the extent necessary upon and over Grantor's land a distance of approximately two hundred ten (210) feet to the Companies' switchgear and padmounted transformer numbered U5 of line number 4020, thence continuing in a northerly direction in, through, under and to the extent necessary upon and over Grantor's land a distance of approximately fifty (50) feet to the Companies' padmounted transformer numbered U5-1 of line number 4020; said Companies' padmounted transformer being southwesterly of Unit Number 62.

Direction No. 3C

Beginning at the aforementioned Companies' junction cabinet numbered U4 of line number 4020, thence extending in a southeasterly direction in, through, under and to the extent necessary upon and over Grantor's land a distance of approximately one hundred ten (110) feet to the Companies' padmounted transformer numbered U4-6 of line number 4020; said Companies' padmounted transformer being northeasterly of Unit Number 54.

Direction No. 4

Beginning at the aforementioned Companies' junction cabinet numbered U3 of line number 4020, thence extending in a southeasterly direction in, through, under and to the extent necessary upon and over Grantor's land a distance of approximately one hundred eighty five (185) feet to a point.

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thence continuing in a southwesterly direction in, through, under and to the extent necessary upon and over Grantor's land a distance of approximately ninety five (95) feet to the Companies' padmounted transformer and Companies' junction cabinet numbered U2 of line number 4026, where the said easement strip diverts in two directions described as follows:

Direction No. 4A

Beginning at the aforementioned Companies' padmounted transformer and Companies' junction cabinet numbered U2 of line number 4026, thence extending in a southeasterly direction in, through, under and to the extent necessary upon and over Grantor's land a distance of approximately sixty (60) feet to a point, thence continuing in a southerly direction in, through, under and to the extent necessary upon and over Grantor's land a distance of approximately ninety (90) feet to the Companies' padmounted transformer numbered U3 of line number 4026; said Companies' padmounted transformer being northerly of Unit Number 43.

Direction No. 4B

Beginning at the aforementioned Companies' padmounted transformer and Companies' junction cabinet numbered U2 of line number 4026, thence extending in a northeasterly direction in, through, under and to the extent necessary upon and over Grantor's land a distance of approximately one hundred thirty (130) feet to the Companies' padmounted transformer numbered U2-1 of line number 4026; said Companies' padmounted transformer being northwesterly of Unit Number 34.

The property within which the said easement and right of way is to be located was conveyed to Maple Hill Estates, Inc. by Teakettle Lake Estates, on March 20, 1985, and recorded in the Putnam County Clerk's office on March 28, 1985, in Liber 843 of Deeds at Page 202 and is depicted on two certain maps entitled "Final Subdivision Plat of Maple Hill Estates" filed in the Putnam County Clerk's office on June 19, 1985 as maps numbered 2078A and 2078B.

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EASEMENT

Line Maple Hill Estates URD  
Auth. 11055-900 Parcel No. 390-65  
Area cost center number 11-70  
Construction W.O. No. 11835-4

Maple Hill Estates, Inc.

TO  
NEW YORK STATE ELECTRIC  
& GAS CORPORATION  
AND  
NEW YORK TELEPHONE COMPANY

Dated October 17, 1965

STATE OF NEW YORK )  
COUNTY OF Putnam ) SS:

Recorded on the 4 day of  
November, 1965  
at 3:24 o'clock P. M.  
In Book 871 of Deeds at  
Page 233 and examined.

*[Signature]*  
(Clerk)

(Corporate Acknowledgment With Seal) 26.00  
STATE OF NEW YORK ) SS: T.12M ENOBY  
COUNTY OF )

On this 17th day of October,  
1965, before me came  
John L. Arons  
to me personally known, who, being by me duly  
sworn, did depose and say that he resides at  
Cherry Hill Road

In the Town  
of Carmel  
and that he is President  
of Maple Hill Estates, Inc.

the corporation described in and which executed  
the above instrument that he knows the seal of  
said Corporation; that the seal affixed to said  
instrument is such corporate seal; that it was  
so affixed by order of the Board of Directors of  
said Corporation, and that he signed his name  
thereto by like order.

NOV 23 1965  
1 35 PM '65

RECEIVED  
REAL ESTATE  
NOV 4 1965  
TRANSFER TAX  
PUTNAM  
COUNTY

*[Signature]*  
(Notary Public)  
DEBRA A. DRAKE  
Notary Public, State of New York  
Qualified in Orange County  
My Commission Expires March 22, 1968

Consideration on this Document  
is less than \$100.00.

RETURN TO  
CORPORATE RECORDS CENTER  
NEW YORK STATE ELECTRIC & GAS CORP.  
POST OFFICE BOX 287  
ITRACA, NEW YORK 14851

OCT 28 1965

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### Easement

The undersigned, hereinafter called the Grantor(s), being the owner of or having an interest in land situate in the Town of CAROL County of Putnam State of New York, fronting on the street or highway known as Union Valley Road and bounded partly in part by the land of Ria Ora Boulevard and westerly in part by the land of FARREN

In Consideration, of \$1.00 paid by the Grantor, hereby grants and releases unto the NEW YORK STATE ELECTRIC & GAS CORPORATION, a corporation organized under the laws of the State of New York, having an office at Town of Dryden, (no street address), County of Tompkins, State of New York, herein called the Grantee, its successors and assigns, in or their lessees or licensees, the right, privilege, and authority at anytime to construct, reconstruct, extend, operate, inspect, maintain, and at its pleasure, remove a pole line with the necessary wires, cross arms, guy wires, braces and other fixtures and appurtenances used or adopted for the transmission and/or distribution of electric current and/or for telephone or telegraph communication for public or private use, upon and over said land and property and/or the highways abutting or running through said land. The easement and right of way hereby granted and released is twenty (20) feet in width throughout its extent, situate, lying and being as follows:

The centerline of said Easement and right of way to begin at Grantor's pole numbered 7889 of line number 747, situate on the northerly side of Union Valley Road, thence extending in a southeasterly direction upon and over said road and Grantor's land a distance of approximately three hundred forty (340) feet to a point, thence continuing in a southerly direction upon and over Grantor's land a distance of approximately one hundred forty five (145) feet to a point; said point being off the northerly side of Ria Ora Boulevard.

Together with free ingress and egress for all the above purposes including the right now and from time to time to trim, cut, burn and remove by manual, mechanical or chemical means trees, brush and other obstructions within said easement and right of way.

Provided, however, that any damage (other than for trimming, cutting, or removing trees, as above provided) to the property of the Grantor(s), caused by the Grantee in constructing or repairing said line, shall be borne by the Grantee.

Reserving, however, to the Grantor(s) the right to cultivate the ground between said poles and supporting structures and beneath said wires and fixtures and the right to cross and recross said easement and right of way provided that such use of said ground shall not interfere with, obstruct or endanger any rights granted as aforesaid and shall not disturb the grade of said ground as it now exists, and provided that no structure shall be erected, and no excavating, mining or blasting shall be undertaken within the limits of the right of way without written consent of the Grantee. Grantor(s) in said use of said ground shall maintain a clearance of ten (10) feet or more from Grantee's aerial wires with equipment or otherwise.

In Witness Whereof, the Grantor(s) hereunto set their hand and seal this 7th day of November, 1985

In Presence of:

MAPLE HILL ESTATES, INC.

By: John Thomas Pate  
 Address: 1614 Hill Road  
Carroll, Maryland  
 Address: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 Address: \_\_\_\_\_



301RS

11.00  
7.00  
2.00

**Easement**

*(Personal Acknowledgment)*

*(Subscribing Witness Acknowledgment)*

*(Corporate Acknowledgment With Seal)*

Use Maple Hill Estates Reconstruction  
Auth. 11055-900 Parcel No. 390-66  
Auto cost center number 11-70  
Construction W. O. No. 11835-1

Maple Hill Estates, Inc.

TO  
**NEW YORK STATE ELECTRIC  
& GAS CORPORATION**

Date November 7, 1985

State of New York  
County of Putnam

Recorded on the 22 day of  
November, 1985  
at 11 o'clock P.M.  
In Book 873 of Deeds at  
Page 296 and enclosed.

*[Signature]*  
(clock)

State of New York  
County of \_\_\_\_\_ ss:  
On this \_\_\_\_\_ day of \_\_\_\_\_  
1985, before me, the subscriber, personally appeared \_\_\_\_\_

to me personally known and known to me to be the same person described in and who executed the within instrument and duly acknowledged to me the execution of the same.

(Notary Public)

**REMARKS**

Title verified by \_\_\_\_\_ Date \_\_\_\_\_  
Paid from Working Fund \_\_\_\_\_ Office \_\_\_\_\_  
Ch. No. \_\_\_\_\_ Amt. \_\_\_\_\_ Date \_\_\_\_\_  
Ch. No. \_\_\_\_\_ Amt. \_\_\_\_\_ Date \_\_\_\_\_

Consideration on this Document  
is less than \$100.00

NOV 18 1985

RETURN TO  
**CORPORATE RECORDS CENTER**  
NEW YORK STATE ELECTRIC & GAS CORP.  
POST OFFICE BOX 287  
ITHACA, NEW YORK 14851

State of New York  
County of \_\_\_\_\_ ss:  
On this \_\_\_\_\_ day of \_\_\_\_\_  
1985, before me personally one \_\_\_\_\_

the subscribing witness to the foregoing instrument, with whom I am personally acquainted, who being by me duly sworn, did depose and say that he resides at \_\_\_\_\_

in the \_\_\_\_\_  
of \_\_\_\_\_  
and that he is \_\_\_\_\_  
of Maple Hill Estates, Inc.

to be the individual described in and who executed the foregoing instrument; that he, said subscribing witness, was present and saw \_\_\_\_\_ execute the same; and that he, said witness, at the same time, subscribed his name as witness thereto.

(Notary Public)

RECEIVED  
\$ 5.00  
REAL ESTATE  
NOV 22 1985  
TRANSFER TAX  
PUTNAM  
COUNTY

1305

State of New York  
County of WESTCHESTER ss:

On this 7th day of November  
1985, before me one \_\_\_\_\_

John L. Adams

to me personally known, who, being by me duly sworn, did depose and say that he resides at \_\_\_\_\_  
Cherry Hill Road

in the Town  
of Carmel

and that he is President  
of Maple Hill Estates, Inc.

the corporation described in and which executed the above instrument that he knows the seal of said Corporation; that the seal affixed to said instrument is such corporate seal; that it was so affixed by order of the Board of Directors of said Corporation, and that he signed his name thereto by the order.

*[Signature]*  
(Notary Public)

ROBERT L. HENRATTY  
Notary Public, State of New York  
County of Putnam  
Commission Expires March 28, 1987

NOV 22 1 22 AM '85  
PUTNAM COUNTY  
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Evil 896 PAGE 186

**DECLARATION OF COVENANTS AND RESTRICTIONS**

**THIS DECLARATION, made on the 10th day of March, 1986 by MAPLE HILL ESTATES, INC., a New York Corporation, having its principal place of business at Maple Hill Drive, Mahopac, New York, 10541, hereinafter referred to as the "Declarant",**

**WITNESSETH:**

**WHEREAS, Declarant is the owner of certain real property in the Town of Carmel, County of Putnam, State of New York shown on the maps entitled "Final Subdivision Plat of Maple Hill Estates, situate in Town of Carmel, County of Putnam, New York" filed in the Putnam County Clerk's Office (Division of Land Records) on September 20, 1985, as Map Nos. 2078A and 2078B, which real property is more particularly described on Schedule "A" annexed hereto and is hereinafter referred to as the "Property"; and**

**WHEREAS, Declarant is developing on the Property a residential development to be known as MAPLE HILL ESTATES; and**

**WHEREAS, Declarant desires to subject the Property to certain protective covenants, conditions, restrictions, reservations, easements, liens and charges as hereinafter set forth.**

**NOW, THEREFORE, Declarant hereby declares that the Property described above shall be held, sold and conveyed subject to the following easements, restrictions, reservations, covenants, and conditions, all of which are for the purpose of enhancing and protecting the value, desirability, and attractiveness of the Property. These easements, reservations, covenants, restrictions and conditions shall run with the Property and shall be binding on all parties having or acquiring any right, title or interest in the Property or any part thereof, and shall inure to the benefit of each such party.**

**ARTICLE I  
DEFINITIONS**

**Section 1. "Declarant" shall mean and refer to MAPLE HILL ESTATES, INC. and its successors and assigns.**

**Section 2. "Association" shall mean and refer to the MAPLE HILL ESTATES HOMEOWNERS ASSOCIATION, INC., its successors and assigns, a corporation organized under the Not-for-Profit Corporation Law of the State of New York. The Certificate of Incorporation of the Association was filed in the Department of State of the State of New York on June 10, 1985.**

**Section 3. "Board" or "Board of Directors" shall mean and refer to the Board of Directors of the Association.**

**Section 4. "Member" shall mean and refer to every person or entity who holds membership in the Association.**

**Section 5. "Subdivision Map" shall mean and refer to the maps entitled "Final Subdivision Plat of Maple Hill Estates, situate in the Town of Carmel, County of Putnam, New York" filed in the Putnam County Clerk's Office (Division of Land Records) on September 20, 1985 as Map Nos. 2078A and 2078B as the same may be amended further from time to time.**

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**Section 6. "Property"** shall mean and refer to all the real property shown on the Subdivision Map.

**Section 7. "Common Areas"** shall mean all real property owned by the Association for the common use and enjoyment of the Members of the Association.

**Section 8. "Lot"** shall mean and refer to each numbered plot of land shown on the Subdivision Map, with the exception of the Common Areas and the Garages.

**Section 9. "Owner"** shall mean and refer to the record owner, whether one or more persons or entities, of the fee simple title to any Lot, but excluding those having such interest mainly as security for the performance of an obligation.

**Section 10. "Dwelling Unit" or "Unit"** shall mean and refer to any portion of the structure erected on a Lot designed and intended for use and occupancy as a residence.

**Section 11. "Garage"** shall mean each numbered plot of land shown on the Subdivision Map from 72 through and including 92.

#### ARTICLE II MEMBERSHIP IN THE ASSOCIATION

**Section 1. Membership.** Every Owner of a Lot which is subject to this Declaration shall be a Member of the Association. No Owner shall have more than one membership, regardless of the number of Lots owned. Membership shall be appurtenant to and may not be separated from ownership of any Lot which is subject to this Declaration. Ownership of a Lot shall be the sole qualification for membership. Membership in the Association shall lapse and terminate when a Member shall cease to be an Owner.

**Section 2. Voting Membership.** The Association shall have two classes of voting membership. Class "A" Members shall be all Owners of Lots other than the Declarant. Each Class "A" Member shall have one vote even if such Member owns more than one Lot. Class "A" Members shall not be entitled to vote with respect to any Association matter until the first annual meeting to be held within sixty (60) days after the earlier of the second anniversary of the conveyance of the first Lot or the Declarant has conveyed thirty-five (35) Lots. The Class "B" Member shall be the Declarant which will elect the Directors until the first annual meeting. So long as Declarant owns at least one (1) lot, Declarant shall be entitled to elect one Director. Class "B" membership will terminate at such time as Declarant no longer owns at least one Lot. When more than one person (or entity) owns any Lot, their vote shall be exercised as they, among themselves, determine but in no event will a split vote nor more than one vote be cast with respect to any such Lot.

#### ARTICLE III PROPERTY RIGHTS

**Section 1. Title to the Common Areas.** The Declarant hereby covenants for itself, its successors and assigns, that it will convey fee simple title to the Common Areas to the Association, free and clear of all mortgages, liens and encumbrances except such encumbrances and conditions as are set forth herein on the Subdivision Map and such other encumbrances and conditions as are set forth on Schedule B annexed hereto. Declarant further covenants that it will convey title to the Common Areas to the Association prior to or simultaneously with the first conveyance of title to a Lot.

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(a) the right of the Association to promulgate rules and regulations to control use of the Common Areas.

(b) the right of the Association, in accordance with its Certificate of Incorporation and By-Laws, to borrow money for the purpose of improving the Common Areas and in aid thereof to mortgage the Common Areas, and the rights of such mortgagees shall be subordinate to the rights of the Owners hereunder.

(c) the right of the Association to dedicate or transfer all or any part of the Common Areas to any public agency, authority, or utility for such purposes as may be deemed necessary by the Board of Directors.

(d) the By-Laws of the Association, as the same are amended from time to time.

(e) the right of individual Members for themselves and their guests, to the use of common parking spaces not designated for individual Lots.

(f) the right of the Declarant and the Association to build additional recreational facilities on the Common Areas.

**Section 3. Easements.**

**A. General Utility Easements.** All Lots, Garages and Common Areas shall each be subject to the rights of the Declarant and its assignees and the Association and its assignees to an Easement hereby reserved on, under, through, and over said Lots, Garages and Common Areas for the purpose of installation, maintenance, repair and replacement of drainage, sanitary sewers, water, electric, telephone, cable television, and any other utilities and appurtenances thereto to serve the Property. The aforesaid Easement is in addition to and includes, but is not limited to, utility easements set forth in Schedule B annexed hereto, or easements to be established and granted by the Declarant or the Association to utility companies which right the Declarant hereby reserves for itself, its successors and assigns.

**B. Easement for Streets, Snowplowing and Landscaping.** Perpetual easements for the installation, maintenance, repair and replacement of streets, walks, parking areas, landscaping and other improvements are hereby reserved in, on, under and over all Lots, Garages and Common Areas for the exclusive benefit of the Declarant and its assignees and for the Association and its assignees. An additional perpetual easement is hereby reserved in, on and over all Lots, Garages and Common Areas for snow removal and storage purposes. Lot owners shall have a perpetual easement of ingress and egress for all purposes over the streets, walks, parking areas and lawns on the Property. Declarant expressly reserves the right for itself, its successors and assigns and for the Association and its assignees, to grant Easements over the Common Areas to public authorities.

**Section 4. During Construction.** As long as sales and construction on the Property continue, Declarant for itself, its successors, assigns and employees, reserves the right to go through, over and across the Common Areas and to show the Common Areas to prospective purchasers of Lots, to complete construction on the Common Areas, the Lots and the Garages, to store and remove construction material, and to enter upon the Common Areas for any purpose, and to erect and maintain one or more signs for the purpose of advertising development on the Property. During such time, the Declarant will use its best efforts not to unreasonably interfere with the use of the

Property by the Members. Declarant will promptly repair any damage caused by it or its employees, contractors or subcontractors in the process of completing construction.

**ARTICLE IV  
DECLARANT'S RIGHT TO CHANGE SUBDIVISION MAP**

**Section 1.** The Declarant hereby reserves the right to make minor revisions of Lot and Garage lines and street and parking area lines from those shown on the Subdivision Map in order to preserve the natural topography of the land and to increase the size of the Lots or Garages to accommodate the proposed building or buildings thereon. The Declarant's right reserved hereunder shall include the right:

- (a) to subtract from the land conveyed to the Association small portions thereof for the purpose of adding such portions to one or more of the numbered Lots or Garages; and
- (b) to shift, in a minor manner, the location of a numbered Lot or Lots or Garage or Garages and the location of a building or buildings; and
- (c) to change, in a minor way, the location of streets or parking areas.

**Section 2.** The Association hereby consents that the Subdivision Map may be amended to effectuate any of the above provisions without any further consent of the Association being required, and further covenants that the Association will, if requested, execute, acknowledge and deliver, without charge, a deed or deeds reconveying to the Declarant, its successors and assigns, any land theretofore conveyed to the Association so that a revision or correction deed or deeds conforming to an amended map may be delivered to the Association. The deeds to numbered Lots and Garages given to Lot Owners shall also provide that the Subdivision Map may be amended accordingly for the above purposes without any consent on their part being required, and that the acceptance of a deed shall be deemed a consent to such future amendment or amendments of the Subdivision Map, and that they covenant that they will, nevertheless, if requested, execute, acknowledge and deliver, without charge, any written consent to such amendment or amendments of the Subdivision Map.

**ARTICLE V  
COVENANT FOR MAINTENANCE ASSESSMENTS**

**Section 1. Creation of the Lien and Personal Obligation of Assessments.** The Declarant, for each Lot and Garage owned by it, hereby covenants, and each Owner of any Lot or Garage, by acceptance of a deed therefor, whether or not it shall be so expressed in any such deed or other conveyance, is deemed to covenant and agree to pay to the Association: (1) annual assessments or charges, and (2) special assessments for capital improvements, such assessments to be fixed, established and collected from time to time as hereinafter provided. The annual and special assessments, together with such interest thereon and costs of collection thereof, including reasonable attorney's fees, as hereinafter provided, shall be a charge on the land and shall be a continuing lien upon the property against which each such assessment is made. Each such assessment, together with such interest, costs, and reasonable attorney's fees, shall also be the personal obligation of the person who was the Owner of such property at the time when the assessment accrued. The personal obligation for delinquent assessments shall pass to an Owner's successor in title by his acceptance of the Deed or by any other means of conveyance of such Lot for which any such assessments are delinquent.

PLU 888 Art 120

**Section 2. Purpose of Assessments.** The assessments levied by the Association shall be used exclusively for any or all of the following purposes: Providing services, promoting the common benefit, recreation, health, safety, culture, education and welfare of the residents in the Common Areas and in particular for the improvement and maintenance of Common Areas and Garages, and as determined by the Board of Directors, exteriors of Dwelling Units, their grounds, walks and fences, and services and facilities devoted to these purposes and related to the use and enjoyment of the Common Areas including but not limited to the payment of taxes, insurance, utility charges, etc. on the Common Areas, and repair, replacement, and additions thereto and for the cost of labor, equipment, material, management, improvements, and supervision thereof and for the removal of snow and ice from walks, streets, parking areas and drives on the Lots and Garages.

**Section 3. Annual Assessments.** After consideration of current maintenance costs and future needs of the Association, the Board shall fix the annual assessment to be paid by each Owner to the Association. The Board shall prepare a budget upon which the annual assessments for the ensuing year will be based and a copy of such budget together with a notice of annual assessment shall be submitted to each Member at least thirty (30) days prior to the commencement of each annual assessment period.

The Board may, after consideration of future costs for exterior maintenance of the buildings on the Property and the streets, walks, parking areas and other improvements located upon the Common Areas, establish a reserve fund for such purposes with the monies necessary for such reserve fund to be part of the annual assessment. While the Declarant is in control of the Board, the reserve fund shall not be used to reduce projected Association charges.

**Section 4. Special Assessments for Capital Improvements.** In addition to the annual assessments authorized above, the Association may levy in any assessment year a special assessment applicable to that year only, for the purpose of defraying, in whole or in part, the cost of any construction or reconstruction, unexpected repair or replacement of a described capital improvement upon the streets, walks, parking areas and other improvements located upon the Common Areas, or Garages, including the necessary fixtures and personal property related thereto and/or for the exteriors of buildings on the Property, their grounds and walks, provided that any such assessment shall have the assent of the Owners of at least a majority of the Lots at a meeting duly called for this purpose, written notice of which shall be sent to all Members not less than thirty (30) days in advance of the meeting setting forth the purpose of the meeting.

**Section 5. Uniform Rate of Assessment.** Both annual and special assessments must be fixed at a uniform rate for all Lots and may be collected on a monthly basis. There shall be no separate assessment for Garages.

**Section 6. Declarant's Obligation.** Notwithstanding anything to the contrary contained in this Declaration or the By-Laws, the Declarant's covenant and obligation to pay assessments shall be limited to the lesser of the following sums:

(a) the assessments on all unsold Lots determined in accordance with Sections 3, 4 and 5 of this Article; or

(b) the sum of the actual costs of operation, maintenance, insurance and repair of the Common Areas and other obligations of the Association for such fiscal year of the Association, less all assessments levied against all other Owners for such fiscal year. If the aggregate of the assessments levied against all Owners other than the Declarant is greater than the sum of the expenses and obligations of the Association described above for any fiscal year, the Declarant shall be entitled to credit such

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difference against its obligation to pay assessments in any subsequent fiscal year.

In supplying services, the Declarant may direct the Association not to supply maintenance or other services to any Lots to which title remains in the Declarant. For the purpose of this Article only, title to a Dwelling Unit on any Lot which has been leased or rented by the Declarant shall not be considered to remain in the Declarant.

**Section 7. Date of Commencement of Annual Assessments: Due Dates.** As to each Lot, the annual assessment provided for herein commences when title to such a Lot is conveyed by the Declarant or when a Dwelling Unit on such a Lot has been leased or rented by the Declarant. The use by the Declarant of one (1) or more Units as models, sales and/or business offices or for storage purposes shall not be deemed a leasing or renting thereof by the Declarant. The first annual assessment shall be adjusted according to the number of months remaining in the fiscal year. The Board of Directors shall fix the amount of the annual assessment against each Lot at least thirty (30) days in advance of each annual assessment period. Written notice of the annual assessment shall be sent to every Owner subject thereto. The due dates shall be established by the Board of Directors. The Association shall upon demand at any time furnish a certificate in writing signed by an officer of the Association setting forth whether the assessments on a specified Lot have been paid. A reasonable charge may be made by the Board for the issuance of these certificates. Such certificates shall be conclusive evidence of payment of any assessment therein stated to have been paid.

**Section 8. Effect of Nonpayment of Assessments: Remedies of the Association.** Any assessments which are not paid when due shall be delinquent. If the assessment is not paid within thirty (30) days after the due date, the assessment shall bear interest from the date of delinquency at the rate of twelve (12) percent per annum and the Association may bring an action at law against the Owner personally obligated to pay the same, or foreclose the lien against the property, and interest, costs, and reasonable attorney's fees of any such action shall be added to the amount of such assessment. No Owner may waive or otherwise escape liability for the assessments provided for herein by non-use of the Common Areas or abandonment of his Lot.

The Board of Directors may suspend delinquent Owners' privileges to use the Association's property other than for ingress, egress and parking until the default is cured.

**Section 9. Subordination of the Lien to Mortgages.** The lien of the assessments provided for herein shall be subordinate to the lien of any first mortgage on a Lot. Sale or transfer of any Lot shall not affect the assessment lien. However, the sale or transfer of any Lot which is subject to any first mortgage, pursuant to a decree of foreclosure under such mortgage, shall extinguish the lien of such assessments as to payments thereof which became due prior to such sale or transfer. No sale or transfer shall relieve such Lot from liability for any assessments thereafter becoming due or from the lien thereof.

**Section 10. Exempt Property.** The following property subject to this Declaration shall be exempt from the assessments created herein:

- (a) all properties dedicated to and accepted by a local public authority;
- (b) the Common Areas;
- (c) the Garages.

However, no land or improvements devoted to dwelling use shall be exempt from said assessments.

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ARTICLE VI  
EXTERIOR MAINTENANCE

**Section 1. Exterior Maintenance by Owner.** The exterior maintenance of each Unit will be the primary responsibility of the individual Owner. The maintenance of all other buildings on the Property including the Garages will be the responsibility of the Association.

**Section 2. Areas of Maintenance.** In addition to the maintenance upon the Common Areas and Garages, the Association may provide, in its sole discretion, for the exterior maintenance of each Dwelling Unit and its grounds, fences, lawns, walks and building exteriors. The Association may provide such exterior maintenance where the Owner has failed to maintain his Dwelling Unit to Association standards. The nature and extent of such maintenance, if any, shall at all times be determined by the Board of Directors.

**Section 3. Assessment of Cost.** The cost of exterior maintenance of Dwelling Units may be assessed against the Lot upon which such maintenance is performed, in which case such cost shall be added to the annual assessment to which such Lot is subject under Article V hereof, and shall be due and payable as determined by the Board of Directors.

**Section 4. Access at Reasonable Hours.** For the purpose of performing the exterior maintenance pursuant to this Article, the Association, through its duly authorized agents or employees, shall have the right to enter upon any Lot at reasonable hours on any business day.

**Section 5. Willful or Negligent Acts.** In the event that the need for maintenance or repair is caused through the willful or negligent act or omission of the Owner, his family, or guests, or invitees, the cost of such maintenance or repairs shall be added to and become a part of the assessment to which such Owner's Lot is subject.

**Section 6. Right of Access.** Each Owner hereby grants a right of access to his Unit, to the Board and/or any person authorized by it for the purpose of making inspections or for the purpose of correcting any condition originating in his Dwelling Unit and threatening another Dwelling Unit or the Common Areas or which would violate the provisions of any law, order, rule or regulation of any governmental body having jurisdiction thereof or of the Association, or for the purpose of performing installation, alterations, or repairs to the mechanical, electrical, plumbing or other systems. In case of an emergency, such right of entry shall be immediate, whether or not the Owner is present at the time.

ARTICLE VII  
PARTY WALLS OR PARTY FENCES

**Section 1. General Rules of Law to Apply.** To the extent not inconsistent with the provisions of this Article the general rule of law regarding party walls and liability for property damage due to negligence or willful acts or omissions shall apply to each party wall or party fence which is built as part of the original construction of the Dwelling Units upon the Property and any replacement thereof.

In the event that any portion of any structure, as originally constructed by the Declarant, including any party wall or fence, shall protrude over an adjoining Lot or Garage, such structure, party wall or fence shall not be deemed to be an encroachment upon the adjoining Lot or Lots, and Owners shall neither maintain any action for the removal of a party wall or fence or projection, nor any action for damages. In the event there is a protrusion as described in the immediately preceding sentence, it shall be deemed that said Owners have granted perpetual easements to the adjoining Owner or Owners for continuing maintenance and use of the projection, party wall

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or fence. The foregoing shall also apply to any replacements of any structures, party walls or fences if same are constructed in conformance with the original structure, party wall or fence constructed by the Declarant. The foregoing conditions shall be perpetual in duration and shall not be subject to amendment of these covenants and restrictions.

**Section 2. Sharing of Repair and Maintenance.** The cost of reasonable repair and maintenance of a party wall or party fence shall be shared by the Owners who make use of the wall or fence in proportion to such use. The Association, if so determined by the Board of Directors, may maintain party fences.

**Section 3. Destruction by Fire or Other Casualty.** If a party wall is destroyed or damaged by fire or other casualty, any Owner who has used the wall may restore it, and if the other Owners thereafter make use of the wall, they shall contribute to the cost of restoration thereof in proportion to such use without prejudice, however, to the right of any such Owner to call for a larger contribution from the others under any rule of law regarding liability for negligence or willful acts or omissions.

Any repair or reconstruction of the exterior of any Dwelling Unit or Garage must be performed in a good and workmanlike manner and conform as nearly as possible to the original plans and specifications.

**Section 4. Weatherproofing.** Notwithstanding any other provisions of this Article, an Owner who by his negligent or willful act causes the party wall to be exposed to the elements, shall bear the whole cost of furnishing the necessary protection against such elements.

**Section 5. Right to Contribution Runs with Land.** The right of any Owner to contribution from any other Owner under this Article shall be appurtenant to the land and shall pass to such Owner's successors in title.

**Section 6. Disputes.** In the event any dispute arises concerning the party wall or party fence, or under the provisions of this Article, said dispute shall be decided by the Board of Directors of the Association. A vote of 2/3 of the members of the Board of Directors shall be necessary to decide the dispute and said vote shall be binding upon the parties.

**Section 7. Garages.** The foregoing provisions of this Article VII shall also apply to the Garages.

**ARTICLE VIII  
ARCHITECTURAL CONTROL**

**Section 1. Architectural Control Committee.** An Architectural Control Committee ("Committee") is hereby established to be composed of three members designated by the Declarant to serve until title to the last Unit in the project has been delivered and until completion of all Common Areas and facilities. At such time, the Board of Directors shall appoint three new members for three-year terms. A majority of the Committee may designate a member to act for the Committee. In the event of the death, resignation or inability to serve of any member of the Committee, the remaining members shall have full authority to appoint a substitute member who shall serve until as aforesaid. The members of the Committee shall not be entitled to compensation for services performed on the Committee.



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**Section 2. Architecture and Construction.** No building, deck, patio, fence, wall, walkway, landscaping or any structure shall be erected, constructed, reconstructed, or made upon the Property, nor shall any addition to or change or painting or alteration to the exterior of any Unit or Garage be made, until the plans and specifications showing the nature, kind, shape, color, height, materials, and location of the same shall have been submitted to and approved in writing, as to harmony of design and location in relation to surrounding structures and topography, by the Committee.

In the event the Committee fails to approve or disapprove such plans and specifications within sixty (60) days after said plans and specifications have been submitted to it, approval by the Committee will not be required and this Article will be deemed to have been fully complied with.

**Section 3. Architectural Rules.** The Committee may promulgate rules governing the form and content of plans and specifications. The Committee may also issue statements of policy with respect to approval or disapproval of plans and specifications. Such rules and such statements of policy may be amended or revoked by the Committee at any time, and no inclusion in, omission from or amendment of any such rule of statement shall be deemed to bind the Committee to approve or disapprove any feature or matter subject to approval, or to waive the exercise of the Committee's discretion as to any such matter, but no change of policy shall affect the finality of any approval granted prior to such change.

**Section 4. Recovery of Fees and Costs.** The Association, in enforcing any decision made against any Owner pursuant to this Article, shall be entitled to recover from the other party reasonable attorney's fees together with all necessary costs and disbursements in connection therewith.

**Section 5. No Authority.** Neither the Committee nor the Board of Directors shall have the authority to make any decision or pass any resolution that would modify or change any specific limitation or condition set forth in the approvals of the Town of Carmel affecting the Property or in any municipal ordinance, local law or regulation affecting the Property.

#### ARTICLE IX INSURANCE AND CONDEMNATION

**Section 1. Insurance.** The Board of Directors shall maintain (i) comprehensive general liability insurance, to the extent obtainable, covering each Member, lessee and occupant, and the managing agent, if any, against liability for any negligent act of commission or omission attributable to them which occurs on or in the Common Areas, and (ii) fire insurance with extended coverage, water damage, vandalism and malicious mischief endorsements, insuring the Dwelling Units, Garages, poolhouse and all other structures in the Common Areas under an agreed amount replacement value policy or under a policy including an 80% co-insurance provision, and (iii) Directors and Officers Liability Insurance and fidelity bonds for such officers and employees in such amounts as determined necessary by the Board of Directors; and (iv) such other insurance as the Board of Directors shall determine. All insurance premiums for such coverage shall be paid for by the Association. Any repair or reconstruction of the exterior of any Unit or Garage must be performed in a good and workmanlike manner and shall conform as nearly as possible to the original plans and specifications.

**Section 2. Condemnation.** In the event of a taking or diminution in value in connection or by eminent domain of all or part of the Common Areas, the award made for such taking or diminution shall be payable to the Association. The Board of Directors shall arrange for the repair and restoration of such Common Areas, and the Board shall

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disburse the proceeds of such award to the contractors engaged in such repair and restoration in appropriate progress payments. If there shall be a surplus of such proceeds, or if the Members shall elect not to repair or restore the Common Areas, such surplus or the net proceeds of such award shall, at the discretion of the Board of Directors, be utilized by the Association or disbursed to the Members, subject to the rights of any mortgages holding mortgages on the Common Areas and/or Lots.

#### ARTICLE X MORTGAGES

**Section 1. Notice to Association.** An Owner who mortgages his Lot or Garage shall notify the Board of Directors of the Association in writing of the name and address of the Lender.

**Section 2. Notice of Unpaid Assessments.** The Board of Directors, whenever so requested in writing by a Lender, shall promptly report any then unpaid assessments due from, or any other default by, the Owner of the mortgaged Lot.

**Section 3. Notice of Default.** The Board of Directors, when giving notice to an Owner of a default in paying assessments, shall, if such default shall continue for ninety (90) days, send a copy of such notice to the Lender holding a mortgage covering such Lot whose name and address has theretofore been furnished to the Board of Directors.

**Section 4. Notice of Condemnation.** The Association shall send notice to any Institutional Lender holding mortgages on 25% or more of the Lots in the event of a taking in condemnation or by eminent domain of part or all of the Common Areas. Such Institutional Lender shall have the right to contest any condemnation awards on behalf of the Association. If the Institutional Lender is successful and obtains an increase in the condemnation award as a result of its contest, the Institutional Lender shall be entitled to be reimbursed out of such award for its reasonable expenses, including reasonable attorneys fees, for such contest. If the Institutional Lender is not successful in increasing the condemnation award, the contest shall be at the sole cost and expense of the Institutional Lender so contesting.

**Section 5. Waiver by Mortgagee to Insurance Proceeds.** An Owner may not place a mortgage upon his Lot or the Unit erected thereon or his Garage unless said mortgage provides that the holder thereof waives any right under law or otherwise to apply the proceeds from a casualty insurance policy covering such Lot, Unit or Garage to the debt secured by such mortgage.

#### ARTICLE XI RESTRICTIONS ON USE OF LOTS

**Section 1.** The Lots shall be used for residential purposes as defined in the applicable zoning ordinances, as the same may be amended from time to time, and such other accessory uses as permitted by such zoning ordinances. Until all Lots are sold, the Declarant (or its designee) shall have the right to use one (1) or more Units as models, sales and/or business offices or for storage purposes. No portion of a Unit (other than the entire Unit) may be rented, and no transient tenant may be accommodated therein.

**Section 2.** An Owner shall not extend the enclosed area of the Unit on his Lot beyond the building lines as physically defined by the exterior walls existing at the time title to the Unit and Lot is first conveyed by the Declarant.

100 886 Mt 178

**Section 3.** No title in and to the bed of any road or street is to be conveyed to the purchaser of a Lot. Declarant retains the said title and the right to convey the said title to the Association. However, the land in the bed of the roads and streets shown on the Subdivision Map shall be subject to easements of ingress and egress and for the installation and maintenance of all utilities and drainage facilities now or hereafter installed to provide service for the Owners, whether installed on the surface of, or above or below the ground.

**Section 4.** Certain Units on adjacent Lots may have a common pathway in front of said Units. The Owners of such Units shall have unobstructed easements for said Owners, their families, guests, invitees and licensees for ingress and egress to and from said Units.

**Section 5.** No commercial vehicles, trucks, recreational vehicles, trailers, vans, boats, or campers shall be kept ungaraged on any Lot or on the Common Areas except with the approval of the Board of Directors. No Owner may park more than two (2) vehicles on the Property without the express permission of the Board of Directors. These restrictions do not apply to Declarant.

**Section 6.** No animals, livestock or reptiles of any kind shall be raised, bred or kept in any Unit or on any Lot, except that dogs, cats or other household pets may be kept, provided that they are not kept, bred or maintained for any commercial purpose and provided that not more than two pets in the aggregate may be kept in any Unit. No unleased and unattended animals shall be permitted upon the Common Areas unless carried in suitable containers. Any pet raising or creating a nuisance or unreasonable disturbance or noise shall be permanently removed from the Property upon ten (10) days' notice from the Board of Directors.

**Section 7.** Window air conditioners, awnings and exterior clothes lines shall not be installed. No clothes, sheets, blankets, laundry or any other kind of article shall be hung out of a Unit or on a deck or in Common Areas.

**Section 8.** No nuisances or noises of any kind, unwholesome and offensive to the neighborhood, shall be permitted to exist on any Lot, or in any Garage, nor shall any accumulation of rubbish, garbage, junk or materials of any kind be permitted to remain on any Lot or in any Garage. No advertising signs, billboards or other sign devices shall be permitted on any Lot except signs installed by the Declarant on any unsold Lot or signs approved by the Board of Directors. All valid laws, ordinances and regulations of all governmental bodies having jurisdiction shall be observed.

**Section 9.** No sand, earth or sod shall be removed from a Lot, nor shall any excavation be allowed to remain open thereon, except as may be necessary during building construction periods or except as may be approved by the Declarant or the Board of Directors. After construction, lawn and landscaping shall be installed and maintained thereafter in an attractive manner.

**Section 10.** No radio, television or similar towers or similar devices for the reception of signals shall be erected on any Lot or attached to the exterior of any building except as permitted by the Board of Directors.

**Section 11.** There shall be no obstruction of the Common Areas nor shall anything be stored in the Common Areas without the prior consent of the Board of Directors.

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**Section 12.** No fence of wood, living plant material or other material shall be erected except by the Declarant. However, after the conveyance of all Lots by the Declarant, a fence will be considered for approval by the Board of Directors if it complies with the rules and regulations of the Town of Carmel and is approved by the Town if such approval is required. If the fence is of living plant material it must be placed and trimmed by its Owner so as not to extend beyond said Owner's Lot line.

**Section 13.** Notwithstanding any provision herein contained to the contrary, it shall be expressly permissible for the Declarant to maintain during the period of construction and sale of Dwelling Units, upon such portion of the Property as the Declarant deems necessary, such facilities as in the sole opinion of the Declarant may be reasonably required, convenient, or incidental to the construction and sale of said Dwelling Units and improvements to the Common Areas, including but without limitation, a business office, storage area, construction trailers, construction yards, signs, model homes and sales office.

#### ARTICLE XII DURATION AND AMENDMENT OF DECLARATION

The covenants and restrictions of this Declaration shall run with and bind the land, in perpetuity, and shall inure to the benefit of and be enforceable by the Association, or the Owner of any Lot or Garage subject to this Declaration, their respective legal representatives, heirs, successors, and assigns, in perpetuity. Unless specifically prohibited herein, the covenants and restrictions of this Declaration may be amended by an instrument signed by not less than sixty-six and two-thirds (66-2/3%) percent of the Owners.

Notwithstanding anything to the contrary herein contained, as long as the Declarant owns one (1) or more Lots or Garages, there shall be no amendments to this Declaration which would adversely affect any rights of the Declarant reserved or provided herein without first obtaining the Declarant's written consent. In no event may any amendment of this Declaration modify or change any specific limitation or condition imposed on the Property by the Town of Carmel.

At any time, this Declaration may be amended in accordance with the procedures set forth herein to allow for the annexation by the Association of additional land, provided all required governmental rules, regulations, laws and ordinances are complied with prior to such annexation.

#### ARTICLE XIII GENERAL PROVISIONS

**Section 1. Notices.** Any notice required to be sent to any member or Owner under any provision of this Declaration shall be deemed to have been properly sent when mailed, postpaid, to the last known address of the person who appears as member or Owner on the records of the Association at the time of such mailing.

**Section 2. Enforcement.** The Association, or any Owner, shall have the right to enforce, by any proceeding at law or in equity, all restrictions, conditions, covenants, reservations, liens and charges now or hereafter imposed by the provisions of this Declaration. Failure by the Association or by any Owner to enforce any covenant or restrictions herein contained shall in no event be deemed a waiver of the right to do so thereafter. The Association may also deny the use of Recreational Facilities to any member who is in default in the payment of any assessment. The expense of enforcement by

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the Association shall be chargeable to the Owner of the Lot violating these covenants and restrictions and shall constitute a lien on the Lot, collectable in the same manner as assessments hereunder.

**Section 3. Severability.** Invalidation of any one of these covenants or restrictions by judgment or court order shall in no way affect the validity of any other provision, which shall remain in full force and effect.

**Section 4. Governmental Approval.** In the event that any governmental authority requires the modification or any provision contained in this Declaration, the Declarant shall have the power and authority to amend any provision herein to conform to the said governmental requirements, and for the purpose of effectuating such amendments, each Owner of any Lot by acceptance of a deed therefor, whether or not it shall be so expressed in such deed, hereby appoints Declarant as his attorney-in-fact with full power to execute a Supplement Declaration on behalf of such Owner.

IN WITNESS WHEREOF, MAPLE HILL ESTATES, INC., has executed this document by its duly authorized officer and has caused its corporate seal to be hereunto affixed this 10th day of March, 1986.

MAPLE HILL ESTATES, INC.

By: John L. Arons  
JOHN L. ARONS, President

STATE OF NEW YORK

COUNTY OF WESTCHESTER

)  
) ss:  
)

On the 10th day of March, 1986, before me personally came JOHN L. ARONS, to me known, who, being by me duly sworn, did depose and say that he resides at Cherry Hill Road, Carmel, New York, that he is the President of MAPLE HILL ESTATES, INC., the corporation described in and which executed the foregoing instrument; that he knows the seal of said corporation; that the seal affixed to said instrument is such corporate seal; that it was so affixed by order of the Board of Directors of said corporation, and that he signed his name thereto by like order.

Michele Sargeant  
Notary Public

MICHELE SARGEANT  
Notary Public, State of New York  
No. 4718257  
Qualified in Westchester County  
Commission Expires March 20, 1986

Map 856 PAGE 178

**DECLARATION OF COVENANTS AND RESTRICTIONS**

**SCHEDULE A**

All that certain plot, piece or parcel of land, situate, lying and being in the Town of Carmel, County of Putnam and State of New York shown and designated on a certain map entitled "Final Subdivision Plat of Maple Hill Estates, situate in the Town of Carmel, County of Putnam, State of New York" filed in the Putnam County Clerk's Office on September 20, 1985, as Map Nos. 2078A and 2078B. Excepting therefrom the parcel of land designated "50' Right of Way" to be dedicated to the Town of Carmel.

**Vol. 886 PAGE 180 DECLARATION OF COVENANTS AND RESTRICTIONS**

**SCHEDULE B**

**ENCROACHMENTS AND CONDITIONS OF TITLE TO COMMON AREAS**

1. Mining and mineral rights in the heirs and assigns of Philipse;
2. Utility easements in Liber 156 cp 381, 156 cp 422, 190 cp 468, 191 cp 72, and 296 cp 216.
3. Easement granted to Algonquin Gas Transmission Company in Liber 405 cp 7.
4. Rights of others to the natural and unobstructed flow of the streams crossing the premises.
5. Easements granted and to be granted to New York State Electric and Gas Corporation and New York Telephone Company.
6. Encroachments of stairs, driveways, party walls, walks, trim, water, sewer, electrical and storm sewer lines, shrubbery, gutters, leaders and catch basins, if any, onto the Common Areas.
7. Covenants, restrictions, easements, agreements, reservations and other matters set forth in the Declaration of Covenants and Restrictions, to be recorded in the Putnam County Clerk's Office, Division of Land Records.
8. State of facts shown on the maps entitled "Final Subdivision Plat of Maple Hill Estate, situate in the Town of Carmel, County of Putnam, State of New York" filed in the Office of the County Clerk of Putnam County (Division of Land Records) on September 20, 1985 as Map Nos. 2078A and 2078B.
9. Easements, recorded or to be recorded, in favor of individuals, corporations or other entities, municipalities, special districts, electric, light, telephone, water and other public utility companies for the erection and maintenance of their respective apparatus, and to any easements or privileges granted for sewer, water, electric and drainage purposes; and
10. Variations, if any, between record lines and fences, trim, retaining walls and party walls, if any.

DLR 686 REF 181

53.00

PUTNAM COUNTY  
CLERK'S OFFICE  
MAR 10 2 03 PM '06

PUTNAM COUNTY CLERK'S OFFICE  
RECEIVED ON THE 10 DAY OF March 1906  
AT 2 03 P.M. RECORDED IN  
BOOK No. 852 OF Deeds  
AT PAGE None AND EXAMINED

*Joseph J. Halon*  
CLERK

*See Subordination Agreement.  
Liber 745 Pg 47  
Liber 745 Pg 43*

March 10, 1986

MAPLE HILL ESTATES, INC.  
DECLARATION OF COVENANTS  
AND RESTRICTIONS

Town of Carmel

| Tax Map | Block | Lots               |
|---------|-------|--------------------|
| 147     | 4     | 1.-0100 to 1.-9400 |

RECORD AND RETURN TO:

MARY C. NEARY, ESQ.

GOODHUE BANKS ARONS & PICKETT  
130 SARKER STREET  
P.O. BOX 120  
MOUNT NESCO, NEW YORK 10848-0120  
(914) 666-8033



0909 0342

**AMENDATORY AND SUPPLEMENTAL DECLARATION OF  
DECLARATION OF COVENANTS AND RESTRICTIONS**

THIS DECLARATION, made on the 8th day of September, 1986, by MAPLE HILL ESTATES, INC., a New York Corporation, having its principal place of business at Maple Hill Drive, Mahopac, New York, 10541, hereinafter referred to as the "Declarant".

**WITNESSETH:**

WHEREAS, Declarant created a residential community in the Town of Carmel, County of Putnam, State of New York, on real property shown on the maps entitled "Final Subdivision Plat of Maple Hill Estates, situate in Town of Carmel, County of Putnam, New York" filed in the Putnam County Clerk's Office (Division of Land Records) on September 20, 1985, as Map Nos. 2078A and 2078B, which real property is hereinafter referred to as the "Property"; and

WHEREAS, Declarant is developing on the Property a residential development to be known as MAPLE HILL ESTATES; and

WHEREAS, Declarant caused to be recorded in the Putnam County Clerk's Office (Division of Land Records) on the 10th day of March, 1986 in Liber 886 of Deeds at Page 166 a Declaration of Covenants and Restrictions subjecting the Property to certain protective covenants, conditions, restrictions, reservations, easements, liens and charges; and

WHEREAS, said Declaration contained a typographical omission which Declarant seeks to correct in this Amendatory and Supplemental Declaration of Declaration of Covenants and Restrictions; and

WHEREAS, Declarant is the Owner of more than sixty-six and two-thirds (66 2/3%) percent of the Lots, as defined in the Declaration of Covenants and Restrictions.

NOW, THEREFORE, Declarant does hereby amend the Declaration of Covenants and Restrictions recorded in the Putnam County Clerk's Office (Division of Land Records) on the 10th day of March, 1986 in Liber 886 of Deeds at Page 166 by adding to Article III (PROPERTY RIGHTS) the introductory paragraph to Section 2, said Section 2 to read as follows:

**"Section 2. Members' Easements of Enjoyment.** Every Member and every member of a Member's family residing on the Property shall have a right and easement of enjoyment in and to the Common Areas and such easement shall be appurtenant to and shall pass with the title of every Lot, subject to the following provisions:

(a) the right of the Association to promulgate rules and regulations to control use of the Common Areas.

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0909 0343

(b) the right of the Association, in accordance with its Certificate of Incorporation and By-Laws, to borrow money for the purpose of improving the Common Areas and in aid thereof to mortgage the Common Areas, and the rights of such mortgagees shall be subordinate to the rights of the Owners hereunder.

(c) the right of the Association to dedicate or transfer all or any part of the Common Areas to any public agency, authority, or utility for such purposes as may be deemed necessary by the Board of Directors.

(d) the By-Laws of the Association, as the same are amended from time to time.

(e) the right of individual Members for themselves and their guests, to the use of common parking spaces not designated for individual Lots.

(f) the right of the Declarant and the Association to build additional recreational facilities on the Common Areas."

IN WITNESS WHEREOF, the Declarant has duly executed this Amendatory and Supplemental Declaration on the date and year first above written.

MAPLE HILL ESTATES, INC.

By: [Signature]  
JOHN L. ARONS, President

STATE OF NEW YORK            )  
                                          ) SS.:  
COUNTY OF WESTCHESTER    )

On the 8th day of September, 1986, before me personally came JOHN L. ARONS, to me known, who, being by me duly sworn, did depose and say that he resides at Cherry Hill Road, Carmel, New York, that he is the President of MAPLE HILL ESTATES, INC., the corporation described in and which executed the foregoing instrument; that he knows the seal of said corporation; that the seal affixed to said instrument is such corporate seal; that it was so affixed by order of the Board of Directors of said corporation, and that he signed his name thereto be like order.

[Signature]  
Notary Public

MICHELLE SARGENT  
Notary Public, State of New York  
No. 4718257  
Qualified in Westchester County  
Commission Expires May 31, 1988

September 8, 1986

MAPLE HILL ESTATES, INC.

AMENDATORY AND SUPPLEMENTAL  
DECLARATION OF DECLARATION OF  
COVENANTS AND RESTRICTIONS

Town of Carmel

| Tax Map | Block | Lots                 |
|---------|-------|----------------------|
| 147     | 4     | 1.-0100 -<br>1.-9400 |

RECORD AND RETURN TO:

MARY C. NEARY, ESQ.

GOODHUE BANKS ARONS & PICKETT  
126 BARNER STREET  
MOUNT KISCO, NEW YORK 10549  
(914) 939-9033

14:50

PUTNAM COUNTY CLERK'S OFFICE  
SERVED ON THE 12 DAY OF Sept 1986  
AT 9 H. 14 M. A.M. RECORDED IN  
BOOK No. 909 of Deeds  
AT PAGE 302 AND EXAMINED

*[Handwritten Signature]*  
CLERK

SEP 15 9 14 AM '86  
PUTNAM COUNTY  
CLERK'S OFFICE

0909 0344 6060

**Full Environmental Assessment Form**  
**Part 1 - Project and Setting**

**Instructions for Completing Part 1**

**Part 1 is to be completed by the applicant or project sponsor.** Responses become part of the application for approval or funding, are subject to public review, and may be subject to further verification.

Complete Part 1 based on information currently available. If additional research or investigation would be needed to fully respond to any item, please answer as thoroughly as possible based on current information; indicate whether missing information does not exist, or is not reasonably available to the sponsor; and, when possible, generally describe work or studies which would be necessary to update or fully develop that information.

Applicants/sponsors must complete all items in Sections A & B. In Sections C, D & E, most items contain an initial question that must be answered either “Yes” or “No”. If the answer to the initial question is “Yes”, complete the sub-questions that follow. If the answer to the initial question is “No”, proceed to the next question. Section F allows the project sponsor to identify and attach any additional information. Section G requires the name and signature of the project sponsor to verify that the information contained in Part 1 is accurate and complete.

**A. Project and Sponsor Information.**

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                         |                              |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|------------------------------|
| Name of Action or Project:<br>Glencoma Lake / NY054                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                         |                              |
| Project Location (describe, and attach a general location map):<br>Walton Dr (approx. 600 feet SW of intersection with Summit Circle Dr), Mahopac, Putnam County, NY 10541                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                         |                              |
| Brief Description of Proposed Action (include purpose or need):<br>The proposed project consists of the construction of a new communications facility. Specifically, the proposed installation will consist of an approximately 140-foot monopole tower and associated support equipment located within a fenced 30-foot by 85-foot fenced compound on a 50-foot by 100-foot lease area. Access will be gained via a proposed 12-foot wide gravel access road easement emanating west/northwest from Walton Drive for approximately 75 feet to the proposed facility. Underground utilities will follow the access route. Please see the site drawings for complete details. |                         |                              |
| Name of Applicant/Sponsor:<br>Homeland Towers, LLC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Telephone: 203.297.6345 | E-Mail: cv@homelandtowers.us |
| Address: 9 Harmony St, 2nd Floor                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                         |                              |
| City/PO: Danbury                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | State: CT               | Zip Code: 06810              |
| Project Contact (if not same as sponsor; give name and title/role):<br>Christine Vergati                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Telephone:              | E-Mail:                      |
| Address:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                         |                              |
| City/PO:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | State:                  | Zip Code:                    |
| Property Owner (if not same as sponsor):<br>Maple Hill Estates Home Owners                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Telephone:              | E-Mail:                      |
| Address:<br>Maple Hill Dr                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                         |                              |
| City/PO: Mahopac                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | State: NY               | Zip Code: 10541              |

**B. Government Approvals**

**B. Government Approvals, Funding, or Sponsorship.** (“Funding” includes grants, loans, tax relief, and any other forms of financial assistance.)

| Government Entity                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | If Yes: Identify Agency and Approval(s) Required               | Application Date (Actual or projected) |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------|----------------------------------------|
| a. City Council, Town Board, or Village Board of Trustees <input type="checkbox"/> Yes <input type="checkbox"/> No                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                |                                        |
| b. City, Town or Village Planning Board or Commission <input type="checkbox"/> Yes <input type="checkbox"/> No                                                                                                                                                                                                                                                                                                                                                                                                                  | Planning Board - Site plan + Special Permit<br>ZBA - Variances |                                        |
| c. City Council, Town or Village Zoning Board of Appeals <input type="checkbox"/> Yes <input type="checkbox"/> No                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                |                                        |
| d. Other local agencies <input type="checkbox"/> Yes <input type="checkbox"/> No                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                |                                        |
| e. County agencies <input type="checkbox"/> Yes <input type="checkbox"/> No                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                |                                        |
| f. Regional agencies <input type="checkbox"/> Yes <input type="checkbox"/> No                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                |                                        |
| g. State agencies <input type="checkbox"/> Yes <input type="checkbox"/> No                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                |                                        |
| h. Federal agencies <input type="checkbox"/> Yes <input type="checkbox"/> No                                                                                                                                                                                                                                                                                                                                                                                                                                                    | FCC                                                            |                                        |
| <p>i. Coastal Resources.</p> <p><i>i.</i> Is the project site within a Coastal Area, or the waterfront area of a Designated Inland Waterway? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p><i>ii.</i> Is the project site located in a community with an approved Local Waterfront Revitalization Program? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p><i>iii.</i> Is the project site within a Coastal Erosion Hazard Area? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> |                                                                |                                        |

**C. Planning and Zoning**

**C.1. Planning and zoning actions.**

Will administrative or legislative adoption, or amendment of a plan, local law, ordinance, rule or regulation be the only approval(s) which must be granted to enable the proposed action to proceed?  Yes  No

- **If Yes**, complete sections C, F and G.
- **If No**, proceed to question C.2 and complete all remaining sections and questions in Part 1

**C.2. Adopted land use plans.**

a. Do any municipally- adopted (city, town, village or county) comprehensive land use plan(s) include the site where the proposed action would be located?  Yes  No

If Yes, does the comprehensive plan include specific recommendations for the site where the proposed action would be located?  Yes  No

b. Is the site of the proposed action within any local or regional special planning district (for example: Greenway Brownfield Opportunity Area (BOA); designated State or Federal heritage area; watershed management plan; or other?)  Yes  No

If Yes, identify the plan(s):

NYC Watershed Boundary \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

c. Is the proposed action located wholly or partially within an area listed in an adopted municipal open space plan, or an adopted municipal farmland protection plan?  Yes  No

If Yes, identify the plan(s):

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**C.3. Zoning**

a. Is the site of the proposed action located in a municipality with an adopted zoning law or ordinance.  Yes  No  
If Yes, what is the zoning classification(s) including any applicable overlay district?  
Residential

b. Is the use permitted or allowed by a special or conditional use permit?  Yes  No

c. Is a zoning change requested as part of the proposed action?  Yes  No  
If Yes,  
i. What is the proposed new zoning for the site? \_\_\_\_\_

**C.4. Existing community services.**

a. In what school district is the project site located? Mahopac Central School District

b. What police or other public protection forces serve the project site?  
Carmel Police Department

c. Which fire protection and emergency medical services serve the project site?  
Mahopac Volunteer Fire Department

d. What parks serve the project site?  
Baldwin Meadows Park, located approximately 1 mile west of Subject Property.

**D. Project Details**

**D.1. Proposed and Potential Development**

a. What is the general nature of the proposed action (e.g., residential, industrial, commercial, recreational; if mixed, include all components)? Public Utility

b. a. Total acreage of the site of the proposed action? 0.135 acres  
b. Total acreage to be physically disturbed? 0.135 acres  
c. Total acreage (project site and any contiguous properties) owned or controlled by the applicant or project sponsor? 0.135 acres

c. Is the proposed action an expansion of an existing project or use?  Yes  No  
i. If Yes, what is the approximate percentage of the proposed expansion and identify the units (e.g., acres, miles, housing units, square feet)? % \_\_\_\_\_ Units: \_\_\_\_\_

d. Is the proposed action a subdivision, or does it include a subdivision?  Yes  No  
If Yes,  
i. Purpose or type of subdivision? (e.g., residential, industrial, commercial; if mixed, specify types) \_\_\_\_\_  
ii. Is a cluster/conservation layout proposed?  Yes  No  
iii. Number of lots proposed? \_\_\_\_\_  
iv. Minimum and maximum proposed lot sizes? Minimum \_\_\_\_\_ Maximum \_\_\_\_\_

e. Will proposed action be constructed in multiple phases?  Yes  No  
i. If No, anticipated period of construction: +/- 3 months  
ii. If Yes:  
• Total number of phases anticipated \_\_\_\_\_  
• Anticipated commencement date of phase 1 (including demolition) \_\_\_\_\_ month \_\_\_\_\_ year  
• Anticipated completion date of final phase \_\_\_\_\_ month \_\_\_\_\_ year  
• Generally describe connections or relationships among phases, including any contingencies where progress of one phase may determine timing or duration of future phases: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

f. Does the project include new residential uses?  Yes  No  
 If Yes, show numbers of units proposed.

|               | <u>One Family</u> | <u>Two Family</u> | <u>Three Family</u> | <u>Multiple Family (four or more)</u> |
|---------------|-------------------|-------------------|---------------------|---------------------------------------|
| Initial Phase | _____             | _____             | _____               | _____                                 |
| At completion | _____             | _____             | _____               | _____                                 |
| of all phases | _____             | _____             | _____               | _____                                 |

g. Does the proposed action include new non-residential construction (including expansions)?  Yes  No  
 If Yes,

i. Total number of structures \_\_\_\_\_ 1

ii. Dimensions (in feet) of largest proposed structure: \_\_\_\_\_ 140' height; \_\_\_\_\_ N/A width; and \_\_\_\_\_ N/A length

iii. Approximate extent of building space to be heated or cooled: \_\_\_\_\_ square feet

h. Does the proposed action include construction or other activities that will result in the impoundment of any liquids, such as creation of a water supply, reservoir, pond, lake, waste lagoon or other storage?  Yes  No  
 If Yes,

i. Purpose of the impoundment: \_\_\_\_\_

ii. If a water impoundment, the principal source of the water:  Ground water  Surface water streams  Other specify: \_\_\_\_\_

iii. If other than water, identify the type of impounded/contained liquids and their source. \_\_\_\_\_

iv. Approximate size of the proposed impoundment. Volume: \_\_\_\_\_ million gallons; surface area: \_\_\_\_\_ acres

v. Dimensions of the proposed dam or impounding structure: \_\_\_\_\_ height; \_\_\_\_\_ length

vi. Construction method/materials for the proposed dam or impounding structure (e.g., earth fill, rock, wood, concrete): \_\_\_\_\_

**D.2. Project Operations**

a. Does the proposed action include any excavation, mining, or dredging, during construction, operations, or both?  Yes  No  
 (Not including general site preparation, grading or installation of utilities or foundations where all excavated materials will remain onsite)  
 If Yes:

i. What is the purpose of the excavation or dredging? \_\_\_\_\_

ii. How much material (including rock, earth, sediments, etc.) is proposed to be removed from the site?

- Volume (specify tons or cubic yards): \_\_\_\_\_
- Over what duration of time? \_\_\_\_\_

iii. Describe nature and characteristics of materials to be excavated or dredged, and plans to use, manage or dispose of them. \_\_\_\_\_

iv. Will there be onsite dewatering or processing of excavated materials?  Yes  No  
 If yes, describe. \_\_\_\_\_

v. What is the total area to be dredged or excavated? \_\_\_\_\_ acres

vi. What is the maximum area to be worked at any one time? \_\_\_\_\_ acres

vii. What would be the maximum depth of excavation or dredging? \_\_\_\_\_ feet

viii. Will the excavation require blasting?  Yes  No

ix. Summarize site reclamation goals and plan: \_\_\_\_\_

b. Would the proposed action cause or result in alteration of, increase or decrease in size of, or encroachment into any existing wetland, waterbody, shoreline, beach or adjacent area?  Yes  No  
 If Yes:

i. Identify the wetland or waterbody which would be affected (by name, water index number, wetland map number or geographic description): \_\_\_\_\_

ii. Describe how the proposed action would affect that waterbody or wetland, e.g. excavation, fill, placement of structures, or alteration of channels, banks and shorelines. Indicate extent of activities, alterations and additions in square feet or acres:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

iii. Will proposed action cause or result in disturbance to bottom sediments?  Yes  No

If Yes, describe: \_\_\_\_\_

iv. Will proposed action cause or result in the destruction or removal of aquatic vegetation?  Yes  No

If Yes:

- acres of aquatic vegetation proposed to be removed: \_\_\_\_\_
- expected acreage of aquatic vegetation remaining after project completion: \_\_\_\_\_
- purpose of proposed removal (e.g. beach clearing, invasive species control, boat access): \_\_\_\_\_
  
- proposed method of plant removal: \_\_\_\_\_
- if chemical/herbicide treatment will be used, specify product(s): \_\_\_\_\_

v. Describe any proposed reclamation/mitigation following disturbance: \_\_\_\_\_

c. Will the proposed action use, or create a new demand for water?  Yes  No

If Yes:

i. Total anticipated water usage/demand per day: \_\_\_\_\_ gallons/day

ii. Will the proposed action obtain water from an existing public water supply?  Yes  No

If Yes:

- Name of district or service area: \_\_\_\_\_
- Does the existing public water supply have capacity to serve the proposal?  Yes  No
- Is the project site in the existing district?  Yes  No
- Is expansion of the district needed?  Yes  No
- Do existing lines serve the project site?  Yes  No

iii. Will line extension within an existing district be necessary to supply the project?  Yes  No

If Yes:

- Describe extensions or capacity expansions proposed to serve this project: \_\_\_\_\_
  
- Source(s) of supply for the district: \_\_\_\_\_

iv. Is a new water supply district or service area proposed to be formed to serve the project site?  Yes  No

If Yes:

- Applicant/sponsor for new district: \_\_\_\_\_
- Date application submitted or anticipated: \_\_\_\_\_
- Proposed source(s) of supply for new district: \_\_\_\_\_

v. If a public water supply will not be used, describe plans to provide water supply for the project: \_\_\_\_\_

vi. If water supply will be from wells (public or private), maximum pumping capacity: \_\_\_\_\_ gallons/minute.

d. Will the proposed action generate liquid wastes?  Yes  No

If Yes:

i. Total anticipated liquid waste generation per day: \_\_\_\_\_ gallons/day

ii. Nature of liquid wastes to be generated (e.g., sanitary wastewater, industrial; if combination, describe all components and approximate volumes or proportions of each): \_\_\_\_\_

iii. Will the proposed action use any existing public wastewater treatment facilities?  Yes  No

If Yes:

- Name of wastewater treatment plant to be used: \_\_\_\_\_
- Name of district: \_\_\_\_\_
- Does the existing wastewater treatment plant have capacity to serve the project?  Yes  No
- Is the project site in the existing district?  Yes  No
- Is expansion of the district needed?  Yes  No



• Do existing sewer lines serve the project site?  Yes  No  
 • Will line extension within an existing district be necessary to serve the project?  Yes  No  
 If Yes:  
 • Describe extensions or capacity expansions proposed to serve this project: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

iv. Will a new wastewater (sewage) treatment district be formed to serve the project site?  Yes  No  
 If Yes:  
 • Applicant/sponsor for new district: \_\_\_\_\_  
 • Date application submitted or anticipated: \_\_\_\_\_  
 • What is the receiving water for the wastewater discharge? \_\_\_\_\_

v. If public facilities will not be used, describe plans to provide wastewater treatment for the project, including specifying proposed receiving water (name and classification if surface discharge, or describe subsurface disposal plans):  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

vi. Describe any plans or designs to capture, recycle or reuse liquid waste: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

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e. Will the proposed action disturb more than one acre and create stormwater runoff, either from new point sources (i.e. ditches, pipes, swales, curbs, gutters or other concentrated flows of stormwater) or non-point source (i.e. sheet flow) during construction or post construction?  Yes  No  
 If Yes:  
 i. How much impervious surface will the project create in relation to total size of project parcel?  
     \_\_\_\_\_ Square feet or \_\_\_\_\_ acres (impervious surface)  
     \_\_\_\_\_ Square feet or \_\_\_\_\_ acres (parcel size)  
 ii. Describe types of new point sources. \_\_\_\_\_  
 \_\_\_\_\_

iii. Where will the stormwater runoff be directed (i.e. on-site stormwater management facility/structures, adjacent properties, groundwater, on-site surface water or off-site surface waters)?  
 \_\_\_\_\_  
 \_\_\_\_\_

• If to surface waters, identify receiving water bodies or wetlands: \_\_\_\_\_  
 \_\_\_\_\_

• Will stormwater runoff flow to adjacent properties?  Yes  No

iv. Does proposed plan minimize impervious surfaces, use pervious materials or collect and re-use stormwater?  Yes  No

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f. Does the proposed action include, or will it use on-site, one or more sources of air emissions, including fuel combustion, waste incineration, or other processes or operations?  Yes  No  
 If Yes, identify:  
 i. Mobile sources during project operations (e.g., heavy equipment, fleet or delivery vehicles)  
     Temporary construction vehicles \_\_\_\_\_  
 ii. Stationary sources during construction (e.g., power generation, structural heating, batch plant, crushers)  
 \_\_\_\_\_  
 iii. Stationary sources during operations (e.g., process emissions, large boilers, electric generation)  
     Emergency Diesel-fired emergency generator on concrete slab \_\_\_\_\_

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g. Will any air emission sources named in D.2.f (above), require a NY State Air Registration, Air Facility Permit, or Federal Clean Air Act Title IV or Title V Permit?  Yes  No  
 If Yes:  
 i. Is the project site located in an Air quality non-attainment area? (Area routinely or periodically fails to meet ambient air quality standards for all or some parts of the year)  Yes  No  
 ii. In addition to emissions as calculated in the application, the project will generate:  
 • \_\_\_\_\_ Tons/year (short tons) of Carbon Dioxide (CO<sub>2</sub>)  
 • \_\_\_\_\_ Tons/year (short tons) of Nitrous Oxide (N<sub>2</sub>O)  
 • \_\_\_\_\_ Tons/year (short tons) of Perfluorocarbons (PFCs)  
 • \_\_\_\_\_ Tons/year (short tons) of Sulfur Hexafluoride (SF<sub>6</sub>)  
 • \_\_\_\_\_ Tons/year (short tons) of Carbon Dioxide equivalent of Hydroflouorocarbons (HFCs)  
 • \_\_\_\_\_ Tons/year (short tons) of Hazardous Air Pollutants (HAPs)

h. Will the proposed action generate or emit methane (including, but not limited to, sewage treatment plants, landfills, composting facilities)?  Yes  No

If Yes:

i. Estimate methane generation in tons/year (metric): \_\_\_\_\_

ii. Describe any methane capture, control or elimination measures included in project design (e.g., combustion to generate heat or electricity, flaring): \_\_\_\_\_

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i. Will the proposed action result in the release of air pollutants from open-air operations or processes, such as quarry or landfill operations?  Yes  No

If Yes: Describe operations and nature of emissions (e.g., diesel exhaust, rock particulates/dust): \_\_\_\_\_

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j. Will the proposed action result in a substantial increase in traffic above present levels or generate substantial new demand for transportation facilities or services?  Yes  No

If Yes:

i. When is the peak traffic expected (Check all that apply):  Morning  Evening  Weekend  
 Randomly between hours of \_\_\_\_\_ to \_\_\_\_\_.

ii. For commercial activities only, projected number of semi-trailer truck trips/day: \_\_\_\_\_

iii. Parking spaces: Existing \_\_\_\_\_ Proposed \_\_\_\_\_ Net increase/decrease \_\_\_\_\_

iv. Does the proposed action include any shared use parking?  Yes  No

v. If the proposed action includes any modification of existing roads, creation of new roads or change in existing access, describe: \_\_\_\_\_

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vi. Are public/private transportation service(s) or facilities available within 1/2 mile of the proposed site?  Yes  No

vii. Will the proposed action include access to public transportation or accommodations for use of hybrid, electric or other alternative fueled vehicles?  Yes  No

viii. Will the proposed action include plans for pedestrian or bicycle accommodations for connections to existing pedestrian or bicycle routes?  Yes  No

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k. Will the proposed action (for commercial or industrial projects only) generate new or additional demand for energy?  Yes  No

If Yes:

i. Estimate annual electricity demand during operation of the proposed action: \_\_\_\_\_  
Minimal increase for telecommunications equipment for approximately 800 amps to a maximum of 1200 amps

ii. Anticipated sources/suppliers of electricity for the project (e.g., on-site combustion, on-site renewable, via grid/local utility, or other):  
Via local grid \_\_\_\_\_

iii. Will the proposed action require a new, or an upgrade to, an existing substation?  Yes  No

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l. Hours of operation. Answer all items which apply.

|                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                 |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>i. During Construction:</p> <ul style="list-style-type: none"> <li>• Monday - Friday: _____ Normal business hours _____</li> <li>• Saturday: _____</li> <li>• Sunday: _____</li> <li>• Holidays: _____</li> </ul> | <p>ii. During Operations:</p> <ul style="list-style-type: none"> <li>• Monday - Friday: _____ Unmanned facility operates 24/7 _____</li> <li>• Saturday: _____ Unmanned facility operates 24/7 _____</li> <li>• Sunday: _____ Unmanned facility operates 24/7 _____</li> <li>• Holidays: _____ Unmanned facility operates 24/7 _____</li> </ul> |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| <p>m. Will the proposed action produce noise that will exceed existing ambient noise levels during construction, operation, or both? <span style="float: right;"><input type="checkbox"/> Yes <input type="checkbox"/> No</span></p> <p>If yes:</p> <p>i. Provide details including sources, time of day and duration:</p> <p>_____</p> <p>_____</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |  |
| <p>ii. Will proposed action remove existing natural barriers that could act as a noise barrier or screen? <span style="float: right;"><input type="checkbox"/> Yes <input type="checkbox"/> No</span></p> <p>Describe: _____</p> <p>_____</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  |
| <p>n.. Will the proposed action have outdoor lighting? <span style="float: right;"><input type="checkbox"/> Yes <input type="checkbox"/> No</span></p> <p>If yes:</p> <p>i. Describe source(s), location(s), height of fixture(s), direction/aim, and proximity to nearest occupied structures:</p> <p><u>Timed lighting sources inside compound.</u></p> <p>_____</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |  |
| <p>ii. Will proposed action remove existing natural barriers that could act as a light barrier or screen? <span style="float: right;"><input type="checkbox"/> Yes <input type="checkbox"/> No</span></p> <p>Describe: <u>No, trees surrounding compound and access road are to remain, blocking light.</u></p> <p>_____</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |
| <p>o. Does the proposed action have the potential to produce odors for more than one hour per day? <span style="float: right;"><input type="checkbox"/> Yes <input type="checkbox"/> No</span></p> <p>If Yes, describe possible sources, potential frequency and duration of odor emissions, and proximity to nearest occupied structures: _____</p> <p>_____</p> <p>_____</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  |
| <p>p. Will the proposed action include any bulk storage of petroleum (combined capacity of over 1,100 gallons) or chemical products 185 gallons in above ground storage or any amount in underground storage? <span style="float: right;"><input type="checkbox"/> Yes <input type="checkbox"/> No</span></p> <p>If Yes:</p> <p>i. Product(s) to be stored _____</p> <p>ii. Volume(s) _____ per unit time _____ (e.g., month, year)</p> <p>iii. Generally describe proposed storage facilities: _____</p> <p>_____</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |  |
| <p>q. Will the proposed action (commercial, industrial and recreational projects only) use pesticides (i.e., herbicides, insecticides) during construction or operation? <span style="float: right;"><input type="checkbox"/> Yes <input type="checkbox"/> No</span></p> <p>If Yes:</p> <p>i. Describe proposed treatment(s):</p> <p>_____</p> <p>_____</p> <p>_____</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |  |
| <p>ii. Will the proposed action use Integrated Pest Management Practices? <span style="float: right;"><input type="checkbox"/> Yes <input type="checkbox"/> No</span></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |
| <p>r. Will the proposed action (commercial or industrial projects only) involve or require the management or disposal of solid waste (excluding hazardous materials)? <span style="float: right;"><input type="checkbox"/> Yes <input type="checkbox"/> No</span></p> <p>If Yes:</p> <p>i. Describe any solid waste(s) to be generated during construction or operation of the facility:</p> <ul style="list-style-type: none"> <li>• Construction: _____ tons per _____ (unit of time)</li> <li>• Operation : _____ tons per _____ (unit of time)</li> </ul> <p>ii. Describe any proposals for on-site minimization, recycling or reuse of materials to avoid disposal as solid waste:</p> <ul style="list-style-type: none"> <li>• Construction: _____</li> <li>• Operation: _____</li> </ul> <p>iii. Proposed disposal methods/facilities for solid waste generated on-site:</p> <ul style="list-style-type: none"> <li>• Construction: _____</li> <li>• Operation: _____</li> </ul> |  |

s. Does the proposed action include construction or modification of a solid waste management facility?  Yes  No  
 If Yes:  
 i. Type of management or handling of waste proposed for the site (e.g., recycling or transfer station, composting, landfill, or other disposal activities): \_\_\_\_\_  
 ii. Anticipated rate of disposal/processing:  
 • \_\_\_\_\_ Tons/month, if transfer or other non-combustion/thermal treatment, or  
 • \_\_\_\_\_ Tons/hour, if combustion or thermal treatment  
 iii. If landfill, anticipated site life: \_\_\_\_\_ years

t. Will proposed action at the site involve the commercial generation, treatment, storage, or disposal of hazardous waste?  Yes  No  
 If Yes:  
 i. Name(s) of all hazardous wastes or constituents to be generated, handled or managed at facility: \_\_\_\_\_  
 \_\_\_\_\_  
 ii. Generally describe processes or activities involving hazardous wastes or constituents: \_\_\_\_\_  
 \_\_\_\_\_  
 iii. Specify amount to be handled or generated \_\_\_\_\_ tons/month  
 iv. Describe any proposals for on-site minimization, recycling or reuse of hazardous constituents: \_\_\_\_\_  
 \_\_\_\_\_  
 v. Will any hazardous wastes be disposed at an existing offsite hazardous waste facility?  Yes  No  
 If Yes: provide name and location of facility: \_\_\_\_\_  
 \_\_\_\_\_  
 If No: describe proposed management of any hazardous wastes which will not be sent to a hazardous waste facility:  
 \_\_\_\_\_  
 \_\_\_\_\_

**E. Site and Setting of Proposed Action**

**E.1. Land uses on and surrounding the project site**

a. Existing land uses.  
 i. Check all uses that occur on, adjoining and near the project site.  
 Urban  Industrial  Commercial  Residential (suburban)  Rural (non-farm)  
 Forest  Agriculture  Aquatic  Other (specify): \_\_\_\_\_  
 ii. If mix of uses, generally describe:  
 Proposed project to be located in forested area with suburban residential development located to the northeast  
 \_\_\_\_\_

b. Land uses and coverytypes on the project site.

| Land use or Coverytype                                                                   | Current Acreage | Acreage After Project Completion | Change (Acres +/-) |
|------------------------------------------------------------------------------------------|-----------------|----------------------------------|--------------------|
| • Roads, buildings, and other paved or impervious surfaces                               |                 |                                  |                    |
| • Forested                                                                               | 0.135           | 0                                | -0.135             |
| • Meadows, grasslands or brushlands (non-agricultural, including abandoned agricultural) |                 |                                  |                    |
| • Agricultural (includes active orchards, field, greenhouse etc.)                        |                 |                                  |                    |
| • Surface water features (lakes, ponds, streams, rivers, etc.)                           |                 |                                  |                    |
| • Wetlands (freshwater or tidal)                                                         |                 |                                  |                    |
| • Non-vegetated (bare rock, earth or fill)                                               |                 |                                  |                    |
| • Other Describe: Telecom Facility _____                                                 | 0               | 0.135                            | +0.135             |

c. Is the project site presently used by members of the community for public recreation?  Yes  No  
i. If Yes: explain: \_\_\_\_\_

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d. Are there any facilities serving children, the elderly, people with disabilities (e.g., schools, hospitals, licensed day care centers, or group homes) within 1500 feet of the project site?  Yes  No  
If Yes,  
i. Identify Facilities:  
\_\_\_\_\_

---

e. Does the project site contain an existing dam?  Yes  No  
If Yes:  
i. Dimensions of the dam and impoundment:  

- Dam height: \_\_\_\_\_ feet
- Dam length: \_\_\_\_\_ feet
- Surface area: \_\_\_\_\_ acres
- Volume impounded: \_\_\_\_\_ gallons OR acre-feet

ii. Dam's existing hazard classification: \_\_\_\_\_  
iii. Provide date and summarize results of last inspection:  
\_\_\_\_\_

---

f. Has the project site ever been used as a municipal, commercial or industrial solid waste management facility, or does the project site adjoin property which is now, or was at one time, used as a solid waste management facility?  Yes  No  
If Yes:  
i. Has the facility been formally closed?  Yes  No  

- If yes, cite sources/documentation: \_\_\_\_\_

ii. Describe the location of the project site relative to the boundaries of the solid waste management facility:  
\_\_\_\_\_

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g. Have hazardous wastes been generated, treated and/or disposed of at the site, or does the project site adjoin property which is now or was at one time used to commercially treat, store and/or dispose of hazardous waste?  Yes  No  
If Yes:  
i. Describe waste(s) handled and waste management activities, including approximate time when activities occurred:  
\_\_\_\_\_

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h. Potential contamination history. Has there been a reported spill at the proposed project site, or have any remedial actions been conducted at or adjacent to the proposed site?  Yes  No  
If Yes:  
i. Is any portion of the site listed on the NYSDEC Spills Incidents database or Environmental Site Remediation database? Check all that apply:  Yes  No  
 Yes – Spills Incidents database      Provide DEC ID number(s): \_\_\_\_\_  
 Yes – Environmental Site Remediation database      Provide DEC ID number(s): \_\_\_\_\_  
 Neither database  
ii. If site has been subject of RCRA corrective activities, describe control measures: \_\_\_\_\_  
iii. Is the project within 2000 feet of any site in the NYSDEC Environmental Site Remediation database?  Yes  No  
If yes, provide DEC ID number(s): \_\_\_\_\_  
iv. If yes to (i), (ii) or (iii) above, describe current status of site(s):  
\_\_\_\_\_

v. Is the project site subject to an institutional control limiting property uses?  Yes  No

- If yes, DEC site ID number: \_\_\_\_\_
- Describe the type of institutional control (e.g., deed restriction or easement): \_\_\_\_\_
- Describe any use limitations: \_\_\_\_\_
- Describe any engineering controls: \_\_\_\_\_
- Will the project affect the institutional or engineering controls in place?  Yes  No
- Explain: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

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**E.2. Natural Resources On or Near Project Site**

a. What is the average depth to bedrock on the project site? \_\_\_\_\_ >6 feet

b. Are there bedrock outcroppings on the project site?  Yes  No  
 If Yes, what proportion of the site is comprised of bedrock outcroppings? \_\_\_\_\_ %

c. Predominant soil type(s) present on project site: Charlton loam \_\_\_\_\_ 100 %  
 \_\_\_\_\_ %  
 \_\_\_\_\_ %

d. What is the average depth to the water table on the project site? Average: \_\_\_\_\_ >6 feet

e. Drainage status of project site soils:  Well Drained: \_\_\_\_\_ 100 % of site  
 Moderately Well Drained: \_\_\_\_\_ % of site  
 Poorly Drained \_\_\_\_\_ % of site

f. Approximate proportion of proposed action site with slopes:  0-10%: \_\_\_\_\_ % of site  
 10-15%: \_\_\_\_\_ % of site  
 15% or greater: \_\_\_\_\_ 100 % of site

g. Are there any unique geologic features on the project site?  Yes  No  
 If Yes, describe: \_\_\_\_\_  
 \_\_\_\_\_

h. Surface water features.

i. Does any portion of the project site contain wetlands or other waterbodies (including streams, rivers, ponds or lakes)?  Yes  No

ii. Do any wetlands or other waterbodies adjoin the project site?  Yes  No  
 If Yes to either *i* or *ii*, continue. If No, skip to E.2.i.

iii. Are any of the wetlands or waterbodies within or adjoining the project site regulated by any federal, state or local agency?  Yes  No

iv. For each identified regulated wetland and waterbody on the project site, provide the following information:

- Streams: Name NA \_\_\_\_\_ Classification \_\_\_\_\_
- Lakes or Ponds: Name NA \_\_\_\_\_ Classification \_\_\_\_\_
- Wetlands: Name NA \_\_\_\_\_ Approximate Size \_\_\_\_\_
- Wetland No. (if regulated by DEC) NA \_\_\_\_\_

v. Are any of the above water bodies listed in the most recent compilation of NYS water quality-impaired waterbodies?  Yes  No  
 If yes, name of impaired water body/bodies and basis for listing as impaired: \_\_\_\_\_  
 Small wetland area approx 140 feet from the Project Site.

i. Is the project site in a designated Floodway?  Yes  No

j. Is the project site in the 100 year Floodplain?  Yes  No

k. Is the project site in the 500 year Floodplain?  Yes  No

l. Is the project site located over, or immediately adjoining, a primary, principal or sole source aquifer?  Yes  No  
 If Yes:  
 i. Name of aquifer: \_\_\_\_\_

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| <p>m. Identify the predominant wildlife species that occupy or use the project site: _____</p> <p>The Project Site consists of _____ the Project Site is located in the vicinity _____</p> <p>undisturbed natural forested habitat. _____ of the Indiana Bat and the Northern _____</p> <p>Based upon a review of available data _____ Long-eared Bat. (see "o" below)</p>                                                                                                                                                                                                                                                                                                                 |  |
| <p>n. Does the project site contain a designated significant natural community? <span style="float: right;"><input type="checkbox"/> Yes <input type="checkbox"/> No</span></p> <p>If Yes:</p> <p style="margin-left: 20px;">i. Describe the habitat/community (composition, function, and basis for designation): _____</p> <p style="margin-left: 20px;">ii. Source(s) of description or evaluation: _____</p> <p style="margin-left: 20px;">iii. Extent of community/habitat:</p> <ul style="list-style-type: none"> <li>• Currently: _____ acres</li> <li>• Following completion of project as proposed: _____ acres</li> <li>• Gain or loss (indicate + or -): _____ acres</li> </ul> |  |
| <p>o. Does project site contain any species of plant or animal that is listed by the federal government or NYS as endangered or threatened, or does it contain any areas identified as habitat for an endangered or threatened species? <span style="float: right;"><input type="checkbox"/> Yes <input type="checkbox"/> No</span></p> <p>The Project Site is in the vicinity of the Indiana Bat (Endangered) and the Northern Long-eared Bat (Threatened). It should be noted, no critical habitat was identified, however, as the area is wooded it is recommended that tree clearing be restricted from April 1 to October 30 to avoid potential roosting bats.</p>                    |  |
| <p>p. Does the project site contain any species of plant or animal that is listed by NYS as rare, or as a species of special concern? <span style="float: right;"><input type="checkbox"/> Yes <input type="checkbox"/> No</span></p> <p>Based on EBI's review of these resources, the Project Site is located is within the immediate vicinity of NYS listed "Rare Plants or Animals". Therefore, further consultation with the NYDEC is required.</p>                                                                                                                                                                                                                                    |  |
| <p>q. Is the project site or adjoining area currently used for hunting, trapping, fishing or shell fishing? <span style="float: right;"><input type="checkbox"/> Yes <input type="checkbox"/> No</span></p> <p>If yes, give a brief description of how the proposed action may affect that use: _____</p> <p>_____</p>                                                                                                                                                                                                                                                                                                                                                                     |  |
| <p><b>E.3. Designated Public Resources On or Near Project Site</b></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |  |
| <p>a. Is the project site, or any portion of it, located in a designated agricultural district certified pursuant to Agriculture and Markets Law, Article 25-AA, Section 303 and 304? <span style="float: right;"><input type="checkbox"/> Yes <input type="checkbox"/> No</span></p> <p>If Yes, provide county plus district name/number: _____</p>                                                                                                                                                                                                                                                                                                                                       |  |
| <p>b. Are agricultural lands consisting of highly productive soils present? <span style="float: right;"><input type="checkbox"/> Yes <input type="checkbox"/> No</span></p> <p style="margin-left: 20px;">i. If Yes: acreage(s) on project site? _____</p> <p style="margin-left: 20px;">ii. Source(s) of soil rating(s): _____</p>                                                                                                                                                                                                                                                                                                                                                        |  |
| <p>c. Does the project site contain all or part of, or is it substantially contiguous to, a registered National Natural Landmark? <span style="float: right;"><input type="checkbox"/> Yes <input type="checkbox"/> No</span></p> <p>If Yes:</p> <p style="margin-left: 20px;">i. Nature of the natural landmark: <input type="checkbox"/> Biological Community <input type="checkbox"/> Geological Feature</p> <p style="margin-left: 20px;">ii. Provide brief description of landmark, including values behind designation and approximate size/extent: _____</p> <p>_____</p> <p>_____</p>                                                                                              |  |
| <p>d. Is the project site located in or does it adjoin a state listed Critical Environmental Area? <span style="float: right;"><input type="checkbox"/> Yes <input type="checkbox"/> No</span></p> <p>If Yes:</p> <p style="margin-left: 20px;">i. CEA name: _____</p> <p style="margin-left: 20px;">ii. Basis for designation: _____</p> <p style="margin-left: 20px;">iii. Designating agency and date: _____</p>                                                                                                                                                                                                                                                                        |  |

|                                                                                                                                                                                                                                                                               |                                                          |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------|
| e. Does the project site contain, or is it substantially contiguous to, a building, archaeological site, or district which is listed on, or has been nominated by the NYS Board of Historic Preservation for inclusion on, the State or National Register of Historic Places? | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| If Yes:                                                                                                                                                                                                                                                                       |                                                          |
| <i>i.</i> Nature of historic/archaeological resource: <input type="checkbox"/> Archaeological Site <input type="checkbox"/> Historic Building or District                                                                                                                     |                                                          |
| <i>ii.</i> Name: _____                                                                                                                                                                                                                                                        |                                                          |
| <i>iii.</i> Brief description of attributes on which listing is based: _____                                                                                                                                                                                                  |                                                          |
| f. Is the project site, or any portion of it, located in or adjacent to an area designated as sensitive for archaeological sites on the NY State Historic Preservation Office (SHPO) archaeological site inventory?                                                           | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| g. Have additional archaeological or historic site(s) or resources been identified on the project site?                                                                                                                                                                       |                                                          |
| If Yes:                                                                                                                                                                                                                                                                       |                                                          |
| <i>i.</i> Describe possible resource(s): _____                                                                                                                                                                                                                                |                                                          |
| <i>ii.</i> Basis for identification: _____                                                                                                                                                                                                                                    |                                                          |
| h. Is the project site within five miles of any officially designated and publicly accessible federal, state, or local scenic or aesthetic resource?                                                                                                                          | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| If Yes:                                                                                                                                                                                                                                                                       |                                                          |
| <i>i.</i> Identify resource: _____                                                                                                                                                                                                                                            |                                                          |
| <i>ii.</i> Nature of, or basis for, designation (e.g., established highway overlook, state or local park, state historic trail or scenic byway, etc.): _____                                                                                                                  |                                                          |
| <i>iii.</i> Distance between project and resource: _____ miles.                                                                                                                                                                                                               |                                                          |
| i. Is the project site located within a designated river corridor under the Wild, Scenic and Recreational Rivers Program 6 NYCRR 666?                                                                                                                                         | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| If Yes:                                                                                                                                                                                                                                                                       |                                                          |
| <i>i.</i> Identify the name of the river and its designation: _____                                                                                                                                                                                                           |                                                          |
| <i>ii.</i> Is the activity consistent with development restrictions contained in 6NYCRR Part 666?                                                                                                                                                                             |                                                          |
| <input type="checkbox"/> Yes <input type="checkbox"/> No                                                                                                                                                                                                                      |                                                          |

**F. Additional Information**

Attach any additional information which may be needed to clarify your project.

If you have identified any adverse impacts which could be associated with your proposal, please describe those impacts plus any measures which you propose to avoid or minimize them.

**G. Verification**

I certify that the information provided is true to the best of my knowledge.

Applicant/Sponsor Name Homeland Towers LLC      Date January 2, 2020

Signature William Ross      Title Consultant for Applicant



**617.20**  
**Appendix B**  
**State Environmental Quality Review**  
**VISUAL EAF ADDENDUM**

This form may be used to provide additional information relating to Question 11 of Part 2 of the Full EAF.

(To be completed by Lead Agency)

| Visibility |                                                                                                                                                                                 | Distance Between Project and Resource (in Miles) |      |      |      |    |
|------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------|------|------|------|----|
|            |                                                                                                                                                                                 | 0- ¼                                             | ¼- ½ | ½- 3 | 3- 5 | 5+ |
| 1.         | Would the project be visible from:                                                                                                                                              |                                                  |      |      |      |    |
| !          | <i>A parcel of land which is dedicated to and available to the public for the use, enjoyment and appreciation of natural or man-made scenic qualities?</i> Baldwin Meadows Park | G                                                | G    | G    | G    | G  |
| !          | <i>An overlook or parcel of land dedicated to public observation, enjoyment and appreciation of natural or man-made scenic qualities?</i> Baldwin Meadows Park                  | G                                                | G    | G    | G    | G  |
| !          | <i>A site or structure listed on the National or State Registers of Historic Places?</i>                                                                                        | G                                                | G    | G    | G    | G  |
| !          | <i>State Parks?</i> Donald J. Trump State Park                                                                                                                                  | G                                                | G    | G    | G    | G  |
| !          | <i>The State Forest Preserve?</i> California Hill State Forest                                                                                                                  | G                                                | G    | G    | G    | G  |
| !          | <i>National Wildlife Refuges and State Game Refuges?</i> Woods-Trout Wildlife Refuge                                                                                            | G                                                | G    | G    | G    | G  |
| !          | <i>National Natural Landmarks and other outstanding natural features?</i> Iona Island Marsh                                                                                     | G                                                | G    | G    | G    | G  |
| !          | <i>National Park Service lands?</i> Weir Farm National Historic Site                                                                                                            | G                                                | G    | G    | G    | G  |
| !          | <i>Rivers designated as National or State Wild, Scenic or Recreational?</i> Delaware Wild and Scenic River                                                                      | G                                                | G    | G    | G    | G  |
| !          | <i>Any transportation corridor of high exposure, such as part of the Interstate System, or Amtrak?</i> US Route 6                                                               | G                                                | G    | G    | G    | G  |
| !          | <i>A governmentally established or designated interstate or inter-county foot trail, or one formally proposed for establishment or designation?</i> Tactonic State Parkway      | G                                                | G    | G    | G    | G  |
| !          | <i>A site, area, lake, reservoir or highway designated as scenic?</i> Tactonic State Parkway                                                                                    | G                                                | G    | G    | G    | G  |
| !          | <i>Municipal park, or designated open space?</i> Baldwin Meadows Park                                                                                                           | G                                                | G    | G    | G    | G  |
| !          | <i>County road?</i>                                                                                                                                                             | G                                                | G    | G    | G    | G  |
| !          | <i>State road?</i> US Route 6                                                                                                                                                   | G                                                | G    | G    | G    | G  |
| !          | <i>Local road?</i> Walton Drive                                                                                                                                                 | G                                                | G    | G    | G    | G  |
| 2.         | <i>Is the visibility of the project seasonal? (i.e., screened by summer foliage, but visible during other seasons)</i>                                                          |                                                  |      |      |      |    |
|            | GYes                                                                                                                                                                            |                                                  | GNo  |      |      |    |
| 3.         | <i>Are any of the resources checked in question 1 used by the public during the time of year during which the project will be visible?</i>                                      |                                                  |      |      |      |    |
|            | GYes                                                                                                                                                                            |                                                  | GNo  |      |      |    |

**DESCRIPTION OF EXISTING VISUAL ENVIRONMENT**

4. From each item checked in question 1, check those which generally describe the surrounding environment.

|                         | Within    |         |
|-------------------------|-----------|---------|
|                         | *1/4 mile | *1 mile |
| Essentially undeveloped | G         | G       |
| Forested                | G         | G       |
| Agricultural            | G         | G       |
| Suburban Residential    | G         | G       |
| Industrial              | G         | G       |
| Commerical              | G         | G       |
| Urban                   | G         | G       |
| River, Lake, Pond       | G         | G       |
| Cliffs, Overlooks       | G         | G       |
| Designated Open Space   | G         | G       |
| Flat                    | G         | G       |
| Hilly                   | G         | G       |
| Mountainous             | G         | G       |
| Other                   | G         | G       |

**NOTE:** add attachments as needed

5. Are there visually similar projects within:

\*1/2 mile G Yes G No 1 mile Yes No 2 miles Yes No 3 miles  Yes  No

\*Distance from project site is provided for assistance. Substitute other distances as appropriate.

**EXPOSURE**

6. The annual number of viewers likely to observe the proposed project is 11800?

**NOTE:** When user data is unavailable or unknown, use best estimate.

\*Data obtained from <https://gis3.dot.ny.gov/html5viewer/?viewer=tdv>

**CONTEXT**

7. The situation or activity in which the viewers are engaged while viewing the proposed action is:

**FREQUENCY**

| Activity                            | Daily | Weekly | Holidays/<br>Weekends | Seasonally |
|-------------------------------------|-------|--------|-----------------------|------------|
| Travel to and from work             | G     | G      | G                     | G          |
| Involved in recreational activities | G     | G      | G                     | G          |
| Routine travel by residents         | G     | G      | G                     | G          |
| At a residence                      | G     | G      | G                     | G          |
| At worksite                         | G     | G      | G                     | G          |
| Other _____                         |       |        |                       |            |

Reset

Independent Radio Frequency Report  
Regarding a proposed  
Wireless Communications Facility  
For Homeland Towers, LLC and  
New York SMSA Limited Partnership

**Site ID: “Glenacom ”**

Walton Drive  
Mahopac, NY  
Putnam County

Prepared for Homeland Towers, LLC and  
New York SMSA Limited Partnership d/b/a Verizon Wireless

By

PierCon Solutions, LLC  
December 7, 2022

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## 1 PURPOSE AND SCOPE

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PierCon Solutions LLC, an engineering firm specializing in wireless communications, performed an independent analysis regarding the radio frequency engineering aspects of the proposal by Homeland Towers, LLC and New York SMSA Limited Partnership, d/b/a Verizon Wireless to construct and operate a wireless telecommunications facility consisting of antennas and a tower at Walton Drive, Mahopac, NY. The purpose of this site is to relieve a significant coverage gap in service in Verizon Wireless’ network. The following report describes the results of this analysis and how those results apply to the purpose of the proposed site.

In preparation for conducting this analysis, PierCon Solutions obtained applicable engineering data from Verizon Wireless, prepared and reviewed coverage propagation studies, considered the potential for alternative site locations and considered relevant portions of the Town of Carmel’s ordinance for a Wireless Telecommunications. PierCon also performed an independent drive test of both Verizon’s existing coverage and coverage from the proposed tower at 3 heights, 140ft, 120ft and 100ft.

The following report results from a thorough independent study and analysis (from a radiofrequency engineering perspective) of the applicant’s proposal in consideration of the Town of Carmel’s stated zoning goals and restrictions. It includes responses to specific sections of the Zoning Code of the Town of Carmel, addressing those provisions outlined in the Wireless Telecommunications ordinance.

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## 2 GENERAL OVERVIEW

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Verizon Wireless’s current frequency holdings include their original cellular license (850 MHz), PCS license (1900 MHz), AWS license (2100 MHz), and LTE (700 MHz) license. Verizon has currently migrated all of their licensed frequency bands to LTE.

Each frequency band has different performance characteristics for both coverage and capacity. From a coverage perspective, the lower frequency bands (700/850 MHz) cover a greater distance and are less attenuated by trees and terrain, while the higher frequency bands (1900/2100 MHz) cover a lesser distance and are more attenuated by trees and terrain. From a coverage perspective if the 700 MHz (lowest) frequency band demonstrates a gap in coverage then all higher frequency bands (850 MHz, 1900 MHz, 2100 MHz) will demonstrate greater gaps in coverage.

From a capacity perspective, each frequency band offers a finite amount of spectrum bandwidth. It is through this bandwidth that capacity is supported. Within Carmel Verizon Wireless has deployed the following four (4) LTE carrier channels:

| Channel / LTE Carrier | Frequency Band | Spectrum LTE Bandwidth | Physical Resource Blocks |
|-----------------------|----------------|------------------------|--------------------------|
| 1                     | 700 MHz        | 10 MHz                 | 50                       |
| 2                     | 1900 MHz       | 20 MHz                 | 100                      |
| 3                     | 2100 MHz       | 20 MHz                 | 100                      |
| 4                     | 850 MHz        | 10 MHz                 | 50                       |

In an LTE network, the amount of spectrum LTE bandwidth available defines the capacity of the LTE channel based upon the number of physical resource blocks available. A physical resource block (PRB) is the smallest unit of resource that can be assigned to a user. As can be seen from the table above, Verizon Wireless 1900 & 2100 MHz frequency bands provide for the most LTE capacity. Accordingly, the network design is based upon, and user traffic prioritized on, these higher frequency bands.

To effectively distribute capacity, an antenna system is divided into three or four sectors with each sector serving a portion of the area. Improperly located nodes or sites cause an inefficient design with high levels of interference and noise that result in poor user experiences and ultimately require more sites or nodes to cover the same area. From a coverage perspective, signal is not where it is intended, has excessive signal overlap and/or does not complete the coverage objective. From a capacity perspective, signal is not distributed equally amongst all sectors, thereby limiting the capacity of the site to only the sector or sectors of coverage provided from an improperly located node or site.

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### 3 DESIGN OBJECTIVES

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Verizon Wireless has established service and performance goals to provide reliable wireless services across all of its FCC licensed frequency bands and technologies. Verizon Wireless's service and performance goals include providing adequate coverage and capacity for voice and data services, preparing to provide future services, and otherwise improving service capabilities.

The service goals established by Verizon Wireless are designed to provide all customers with a positive wireless voice and data experience. Simply put, a positive wireless experience includes the customer connecting to the network on the first try, staying connected throughout the session, and the customer ending the session when ready. For positive experiences with data connections (e.g., internet browsing) the speed is as fast as the technology allows. Unreliable service, meaning service levels that do not meet Verizon Wireless's service and performance goals, causes a negative experience: customers cannot place calls when they want to; when they are connected, voice call quality does not meet customer expectations; or, the call simply drops off (disconnects) without notice. A negative data experience is not instantaneous, is much slower than consumers expect and demand, or the connection is never established.

Unreliable service that fails to meet Verizon Wireless's service and performance goals, which include voice and/or data services, can occur if there is: (i) a lack of reliable signal, including poor signal quality; and/or (ii) a lack of system capacity, or in terms of LTE, insufficient throughput, for any of Verizon Wireless's services and across all of Verizon Wireless's licensed frequency bands. Providing quality in-building voice and data services, with sufficient system capacity and high-speed data rates, is critical to Verizon Wireless's customers and is essential to Verizon Wireless's ability to compete effectively with its functionally equivalent competitors in a fair and balanced legal and regulatory environment.

In order to adequately provide reliable wireless service to The Town of Carmel, and surrounding area, the design threshold for reliable service must be defined. Verizon Wireless defines the reliable coverage boundary of an LTE site using a value of Reference Signal Received Power (RSRP). This value is derived from industry standard definitions of LTE receiver sensitivity and data throughput, along with statistically quantifiable variations in the physical surroundings. This threshold takes into account additional losses associated with the location of the user, such as on-street, in-vehicle or in-building. The drive test analysis and propagation coverage analyses for Carmel, presented herein, are for services based upon a suburban in-building standard with a corresponding RSRP of -95 dBm and an in-vehicle standard with a corresponding RSRP of -105 dBm. The suburban in-building standard encompasses most wood framed structures such as single-family homes. Stronger signal levels may be required in other locations and environments where higher density buildings and/or population densities are located.

## 4 RADIO FREQUENCY ENGINEERING ACTIVITIES PERFORMED

---

In the course of the analysis described in this report the following RF engineering tasks were performed:

- Reviewed the Wireless telecommunications services facilities ordinance of Carmel
- Reviewed USGS Topographical Maps of Mahopac and surrounding areas.
- Performed an engineering site analysis and reviewed potential alternate locations.
- Aerial analysis
- Reviewed the location and design of adjacent wireless communications facilities
- Prepared and reviewed Radio Frequency coverage maps and the RF design and objective within and surrounding the Town of Carmel
- Performed an independent drive test and Site Evaluation Drive Test
- Evaluated Verizon Wireless's Key System Performance Indicator Data ("KPI Data")

---

## 5 DRIVE TEST METHODOLOGY

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On February 20<sup>th</sup>, 2020, PierCon Solutions performed an independent drive test analysis<sup>1</sup>. The test was performed by Ed Yorke (Sr RF Engineer) and Frances Boschulte (RF Manager). Drive tests (also known as a scan test) are a means to evaluate existing coverage from the network and a site evaluation drive test (also known as a CW test, where a continuous wave test channel is transmitted and measured) are a means to evaluate proposed coverage from a proposed facility.

Drive tests are used to produce maps ("Drive Test Maps"), which demonstrate actual signal levels along roadways that are traveled by specially equipped scan test vehicles. In a drive test, the signals from the surrounding on-air sites (LTE) are collected by a receive antenna mounted to the roof of the drive test vehicle. The data collected by the receive antenna is then processed by computer equipment within the drive test vehicle. The coordinates and signal strength of each collection point is recorded by the computer equipment and ultimately depicted on a Drive Test Map. Literally thousands of data points are collected during a drive test over the roadways driven by the drive test vehicle to ensure that a complete and statistically relevant number of data points can be evaluated.

The drive test consisted of collecting thousands of data points in the vicinity of the Glenacom proposed site and surrounding roadways. A PCTEL IBFLEX F multiband calibrated receiver, capable of measuring signals from the 700, 850, 1900, and 1700/2100 MHz frequency bands, was used to collect data points through the use of a magnetic mounted antenna and GPS device on the outside of the vehicle. The recording software is also capable of measuring LTE Technology. PCTEL drive test software was used to collect the data on a laptop computer while the vehicle was moving. The receiver calibration certification is attached as Exhibit AT.

The site evaluation test also consisted of collecting thousands of data points in the vicinity of the Glenacom proposed site and surrounding roadways. The same PCTEL IBFLEX F multiband receiver was utilized to measure the site evaluation drive test signal from a magnetic mounted antenna located on the roof of the vehicle. The existing coverage drive test and the site evaluation test were performed at the same time with the same receiver.

Since the testing was performed during the time of year with minimal foliage, the test results will be overstated, and require a correlation factor to account for losses due to dense foliage that will be present during the spring through fall

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<sup>1</sup> Since the time of the drive test no additional sites within the proximity of the subject site have been turned on air. Therefore, the data collected is still a valid representation of the signal levels from the surrounding adjacent sites.

season. PierCon utilized a conservative 7 dB foliage correlation in the analysis to follow. This foliage correlation factor was applied to both existing coverage and proposed coverage levels.

- Foliage Correlation Factor applied to all Drive Test measurements (Existing coverage & Test Channels) = **-7dB**

PierCon's level of 7dB for the foliage factor is calculated based on the proposed site location, and the foliage between receiving points. The value of 7dB was calculated using a diffraction loss (commonly known as shadow loss) formula found in William C. Lee's highly respected industry standard book called Mobile Cellular Communications. The formulas which were used are attached to the end of this report in the Appendix. The location referenced for the foliage factor was the intersection of Cottonwood Drive and Tulip Road which resulted in a diffraction loss of 7dB, using an average tree height of 60ft. For locations in this area where tree height exceeds 60ft, the diffraction loss would be greater than 7dB.

An additional correlation factor is required for the site evaluation drive test measurements (and not needed for the existing coverage measurements). This correlation factor is needed so that the transmit power (in terms of EIRP of the test antenna) for the site evaluation drive test channels matches the transmit power of the antennas from an actual LTE communication facility. Correlation factors calculated as follows:

- Correlation Factor for 700 MHz Test Channel
  - 700 MHz Test channel EIRP = 24.5dBm
  - Actual 700MHz LTE Reference Power EIRP = 31.1dBm
  - Correlation Factor to add to 700MHz Test channel measurements =  $31.1 - 24.5 = +6.6\text{dB}$
- Correlation Factor for 2100 MHz Test Channel
  - 2100 MHz Test channel EIRP = 28.9dBm
  - Existing 2100MHz LTE Reference Power EIRP = 31.6dBm
  - Correlation Factor to add to 2100MHz Test channel measurements =  $31.6 - 28.9 = +2.7\text{dB}$

In order to transmit a test channel at several different heights, a crane was required to elevate the test antenna. Due to the surrounding terrain and road access limitations the exact proposed location of the tower could not be tested.

A test location approximately 115' east of the proposed monopole location was selected. This location was along the access road at the end of Walton Drive (about 30 feet past the last house at the end of Walton Drive). Due to the sharp decline in terrain, it would be unsafe to move the crane any closer to the proposed location, and therefore resulted in the test location chosen.

The test location is located at a 25 feet higher ground elevation from the proposed site. To adjust for the ground elevation difference, the crane boom height was reduced 25' at each test height in order to get the equivalent heights as if tested from the subject site location.

- Proposed Location Ground elevation = 742 ft AMSL
- Test Location Ground elevation = 767 ft AMSL (25ft higher)

For a representation of the test location versus the proposed location, please refer to Figure 1 below (Google Earth image) and Figure 2 below (USGS Topographical view)



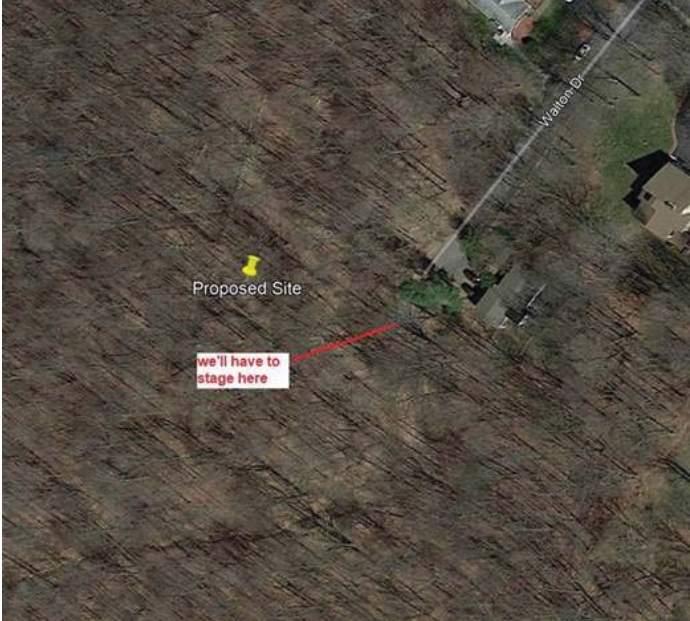


Figure 1 – Google Earth image representing the test location versus the proposed location

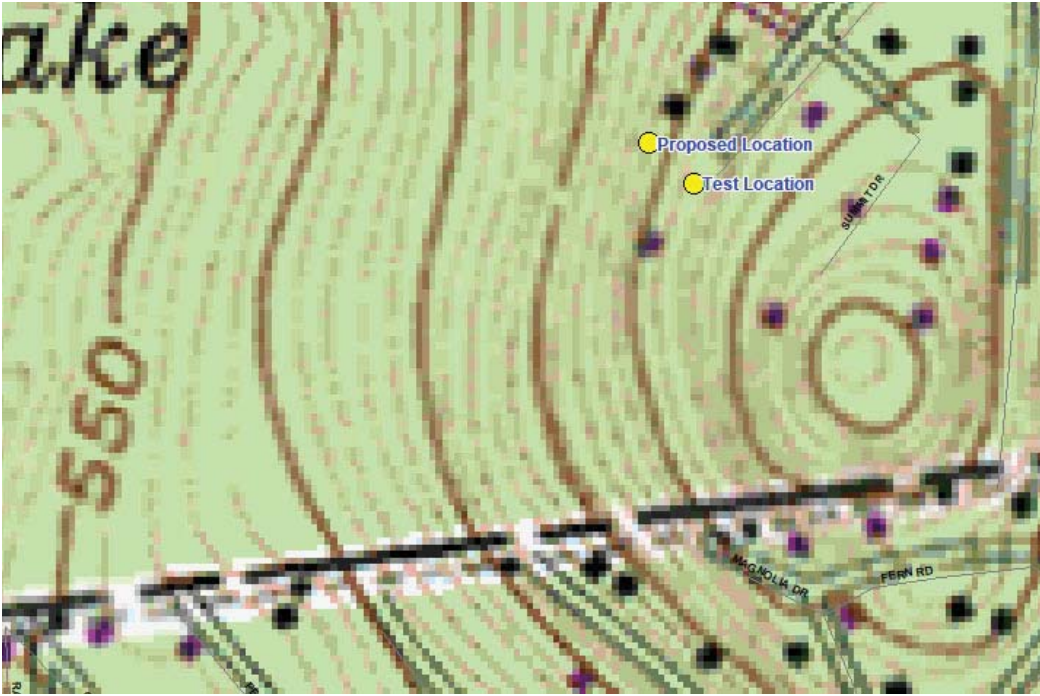


Figure 2 – USGS Topographical Map representing the test location versus the proposed location

## 6 RADIO FREQUENCY DESIGN

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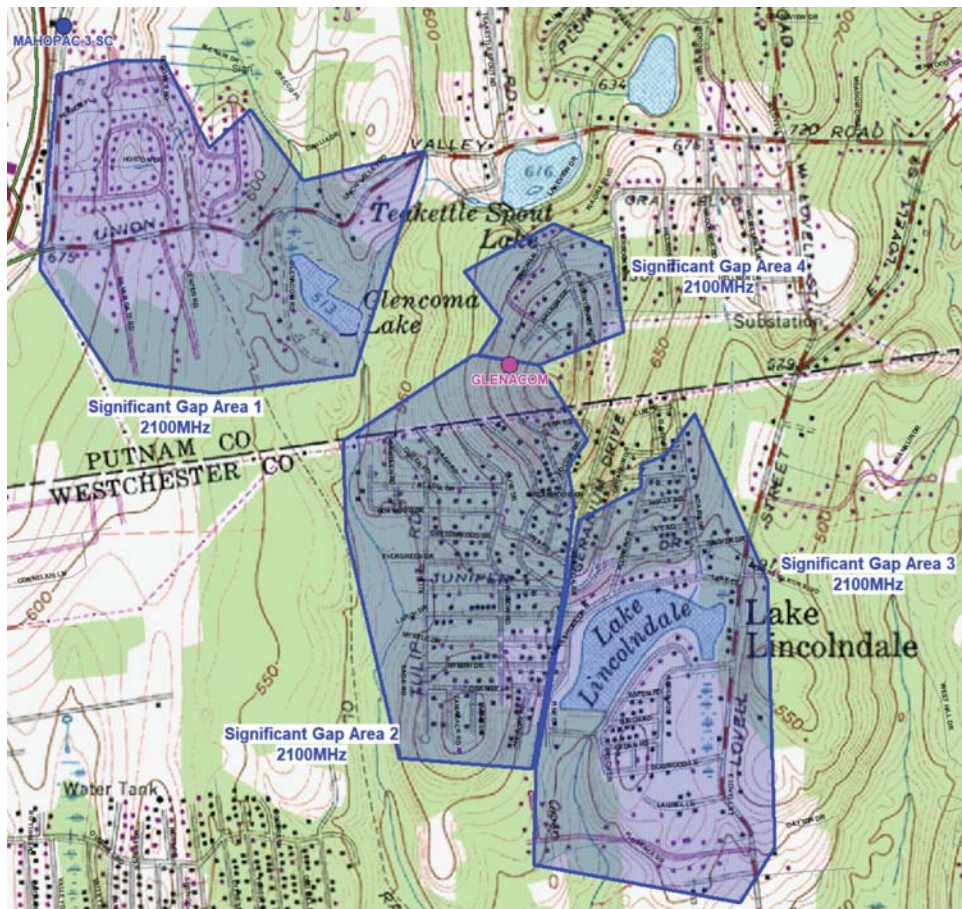
Verizon's current 4th generation technology deployed is LTE and is the relevant standard in which to design to. PierCon Solutions performed site evaluation drive testing on Verizon's highest (2100MHz) and lowest (700MHz) frequency bands in order to demonstrate the worst and best case coverage analysis. PierCon Solutions also collected existing signal strength data on each of Verizon's licensed bands (700 MHz, 850MHz, 1900MHz & 2100 MHz) and prepared exhibits attached hereto for reference. However, the focus of the analysis is based on 700MHz and 2100 MHz as best and worst case scenarios. This is due to the fact that if a gap is demonstrated at 700 MHz, then there will be larger gaps experienced at the 850 MHz and 1900 MHz frequency bands.

Please find attached, in the appendix, the following exhibits for the 2100 MHz LTE, 1900 MHz LTE, 850 MHz LTE, 700 MHz LTE Drive Test Results:

- **Exhibit A – 2100MHz Existing Signal Strength Drive Test Results**
- **Exhibit B – 1900MHz Existing Signal Strength Drive Test Results**
- **Exhibit C – 850MHz Existing Signal Strength Drive Test Results**
- **Exhibit D – 700MHz Existing Signal Strength Drive Test Results**

In exhibits A, B, C and D, the color of the dots represents a range of signal strengths. The blue dots represent RSRP signals greater than or equal to -85 dBm and the green dots represent RSRP signals greater than or equal to -95 dBm and less than -85 dBm. Both blue and green dots represent the area which supports reliable suburban in-building coverage levels. The yellow dots represent RSRP signals greater than or equal to -105 dBm and less than -95 dBm which supports in-vehicle coverage levels (but not suburban in-building coverage). The grey dots represent RSRP signals less than -105 dBm, (no suburban in-building or in-vehicle coverage).

Please refer to the following Exhibits A1 and D1 below as a summary of the significant gap Areas analyzed.



**Exhibit A1 – Coverage Objective Suburban 2100MHz In-Building LTE Coverage**

As shown in Exhibit A1, for 2100MHz the total area that requires reliable coverage is 0.944 square miles and the total residential population is 1,964 people.

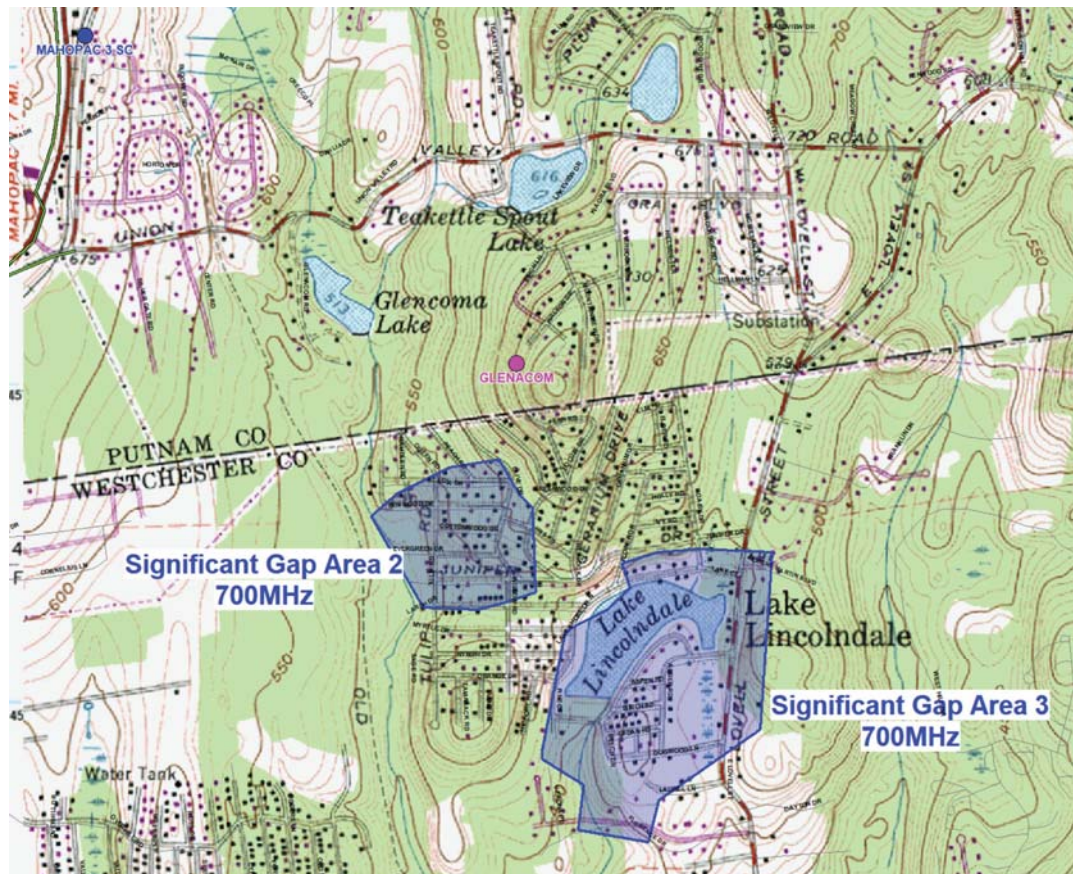


Exhibit D1 – Coverage Objective Suburban 700MHz In-Building LTE Coverage

As shown in Exhibit D1, for 700MHz, the total area that requires reliable coverage is 0.25 square miles and the total residential population is 597 people.

### **2100 MHz Drive Test & Significant Gap in Service**

As previously stated, 2100MHz provides the least coverage range in comparison to all other Verizon frequency bands because of its frequency, but often better signal quality. However, due to its larger bandwidth it is capable of providing more LTE capacity & throughput than the lower frequency bands.

Referring to Exhibit A “2100MHz Existing Signal Strength Drive Test Results”, the drive test data confirms that a significant gap in 2100MHz suburban in-building coverage and 2100MHz suburban in-vehicle coverage exists in the Glenacom area. The four (4) areas shown in Exhibit A1 define the significant gap:

- 2100 Gap Summary
  - Approximately 1 square mile of inbuilding coverage gap
  - According to the 2010 US census, approximately 1,964 people live within the gap area.

### **700 MHz Drive Test & Significant Gap in Service**

As previously stated, 700MHz will provide the largest range in signal coverage in comparison to all other Verizon frequency bands because it is their lowest frequency. However due to its limited bandwidth the signal quality may not be adequate enough to meet Verizon’s LTE service and performance goals.

Referring to Exhibit D 700MHz Existing Signal Strength Drive Test Results, the drive test data confirms that a significant gap in 700MHz suburban in-building coverage exists in the Glenacom area. The two (2) areas shown in Exhibit D1 define the significant gap:

- 700 Gap Summary
  - Approximately 0.25 square mile of inbuilding coverage gap
  - According to the 2010 US census, approximately 597 people live within the gap area.

## **Search Area**

In order to identify an appropriate location for a facility to alleviate the significant gap in coverage a search area was developed. The search area is based upon the existing surrounding sites coverage, validated by the drive test data, and taking into account the surrounding terrain features. A search area is a narrowly defined area, based upon the geometric cellular grid plan and existing gap data analyzed.

Verizon requires a new site centrally located between the four significant gap areas. By being centrally located, the new site would have the minimum overall distance to all four significant gap areas and therefore maximize coverage results of the new site. More specifically, the distance between the northern edge of significant gap area 1 to the southern edge of significant gap area 3 is 2.0 miles. A centrally located site would be no more than 1.0 mile from the furthest resident in these significant gap areas.

In addition, being centrally located would enable the LTE data usage to be equally distributed on all three sectors essentially maximizing the capacity efficiency of the site and improving the overall signal quality in the area.

An additional factor to consider when defining the search area is extreme terrain elevation. The Glenacom area has terrain that varies from approximately 500ft to 860ft AMSL. Terrain features can be major obstacles for providing coverage (terrain can add significant signal attenuation if it blocks line of site visibility). Terrain features can also be a major advantage in some cases (higher ground elevation can typically provide more line of site visibility to the area). Given the significant variations to terrain in this area (~360ft variance), it is necessary to locate a new site on higher ground to maximize line of site visibility. For this area, the highest ground elevation is found in the area that is centrally located around these four significant gap areas.

Combining all these factors, Verizon's search area is centered around the top of this hill. The ideal location would be the 860' elevation peak of this hill which is located at the end of Summit Circle Drive (See Figure 3 below)

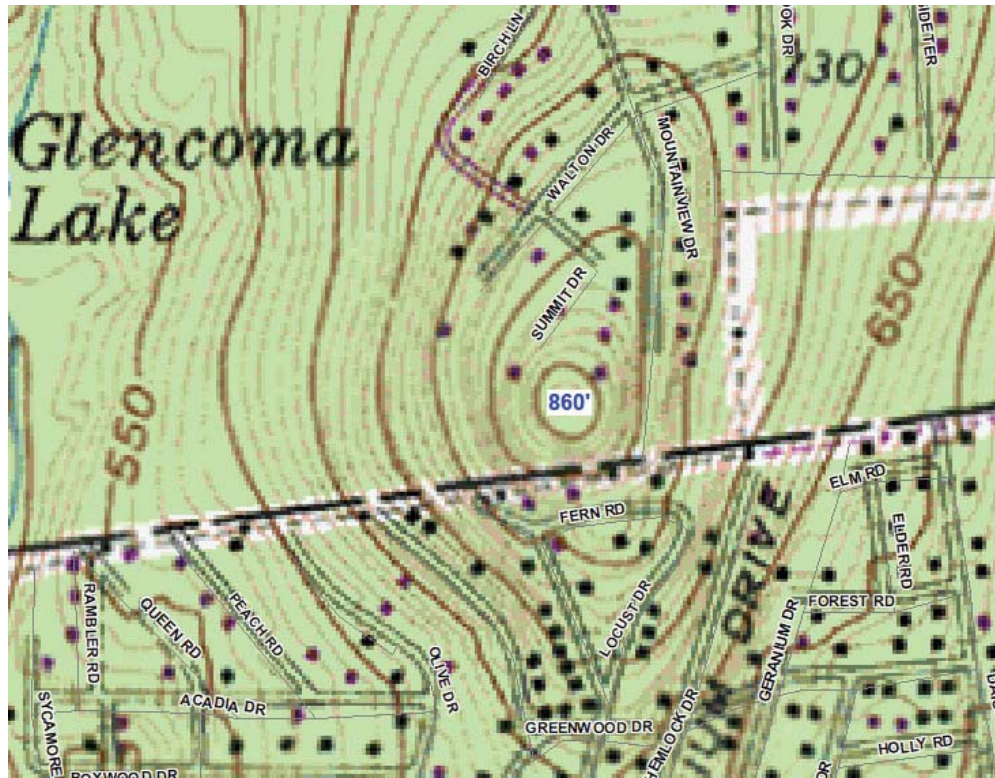


Figure 3 – USGS Topographical Map of the local area

Moving the new site location in any direction away from this 860' elevation peak will result in terrain blocking or shadowing of coverage in particular areas. Given that Verizon's significant gap areas are located west and south of this peak, a new site could potentially be located slightly west or south of the peak as long as there is not a significant loss in terrain elevation. Moving north of the peak will result in blocked / shadowed coverage to the south in the direction of significant gap Areas 2 and 3. Moving east of the peak will result in the blocked / shadowed coverage to the west in the direction of significant gap Area 1.

The process of defining a Search Area for a new site location must take into account all of these factors in order to accomplish the objective. The search area for this particular gap area is centered around the 860' peak at the end of Summit Circle Drive and the western and southern sides of this peak while at the same time maintaining high ground elevation (no less than 700ft elevation). The search area size is 1760ft north to south and 730ft east to west. Please refer to Figure 4 below for the resulting Search Area.

The subject property at the end of Walton Drive was identified to meet the search area criteria and was found to have a willing landlord and therefore the subject of this application.



Figure 4 – Search Area for Glenacom area

In order to determine the minimum height necessary to remedy the significant gaps outlined herein a site evaluation (CW) test was performed. The drive test was performed at multiple heights of 100', 120' and 140' and the expected coverage from each height evaluated against the significant gap areas. The following section describes the results of the CW drive test for both the 2100 MHz and 700 MHz bands at the heights tested.

#### 2100 MHz Site Evaluation Drive Test with Proposed height of 140ft

- Please refer to the following exhibit: **Exhibit E – 2100MHz Site Evaluation Drive Test Results at 140ft (via test location at 115ft)**. Results of the 2100 MHz Drive Test at Proposed height of 140ft., in terms of the four significant gaps previously defined above, are as follows: Provides approximately 0.6 square miles of inbuilding residential coverage
- Provides coverage to approximately 1,342 people living within the gap area.
- Provides coverage to the Glenacom area.

#### **2100 MHz Site Evaluation Drive Test Results with Proposed Site at 120ft**

- Please refer to the following exhibit: **Exhibit F – 2100MHz Site Evaluation Drive Test Results at 120ft (via test location at 95ft)**. Results of the 2100 MHz Drive Test at Proposed height of 120ft., in terms of the four significant gaps previously defined above, are as follows: Provides approximately 0.36 square miles of inbuilding residential coverage
- Provides coverage to approximately 761 people living within the gap area.
- Provides coverage to the Glenacom area.

#### **2100 MHz Site Evaluation Drive Test Results with Proposed Site at 100ft**

- Please refer to the following exhibit: **Exhibit G – 2100MHz Site Evaluation Drive Test Results at 100ft (via test location at 75ft)**. Results of the 2100 MHz Drive Test at Proposed height of 100ft., in terms of the four significant gaps previously defined above, are as follows: Provides approximately 0.1 square miles of inbuilding residential coverage
- Provides coverage to approximately 573 people living within the gap area.

#### **700 MHz Site Evaluation Drive Test Results with Proposed Site at 140ft**

- Please refer to the following exhibit: **Exhibit H – 700MHz Site Evaluation Drive Test Results at 140ft (via test location at 115ft)**. Results of the 700 MHz Drive Test at Proposed height of 140ft., in terms of the four significant gaps previously defined above, are as follows: Provides approximately 0.21 square miles of inbuilding residential coverage
- Provides coverage to approximately 567 people living within the gap area.
- Provides coverage to the Glenacom area.

#### **700 MHz Site Evaluation Drive Test Results with Proposed Site at 120ft**

- Please refer to the following exhibit: **Exhibit I – 700MHz Site Evaluation Drive Test Results at 120ft (via test location at 95ft)**. Results of the 700 MHz Drive Test at Proposed height of 120ft., in terms of the four significant gaps previously defined above, are as follows: Provides approximately 0.11 square miles of inbuilding residential coverage
- Provides coverage to approximately 196 people living within the gap area.
- Provides coverage to the Glenacom area.

#### **700 MHz Site Evaluation Drive Test Results with Proposed Site at 100ft**

- Please refer to the following exhibit: **Exhibit J – 700MHz Site Evaluation Drive Test Results at 100ft (via test location at 75ft)**. Results of the 700 MHz Drive Test at Proposed height of 100ft., in terms of the four significant gaps previously defined above, are as follows: Provides approximately 0.065 square miles of inbuilding residential coverage
- Provides coverage to approximately 128 people living within the gap area.
- Provides coverage to the Glenacom area.



Table 1 - Summary of Results for 2100MHz Site Evaluation Test

| 2100MHz Results        |                        |                               | Proposed at 140ft      |                                          | Proposed at 120ft      |                                          | Proposed at 100ft      |                                          |
|------------------------|------------------------|-------------------------------|------------------------|------------------------------------------|------------------------|------------------------------------------|------------------------|------------------------------------------|
| Significant Gap Area # | Area of Gap (sq miles) | Residential Population in Gap | % Area of Resolved Gap | % Residential Population in Resolved Gap | % Area of Resolved Gap | % Residential Population in Resolved Gap | % Area of Resolved Gap | % Residential Population in Resolved Gap |
| 1                      | 0.31                   | 532                           | 93.5%                  | 100%                                     | 61.3%                  | 66%                                      | 16.1%                  | 44%                                      |
| 2                      | 0.27                   | 526                           | 81.5%                  | 82%                                      | 51.9%                  | 19%                                      | 12.1%                  | 5%                                       |
| 3                      | 0.31                   | 568                           | 6.5%                   | 8%                                       | 0.0%                   | 0%                                       | 0.0%                   | 0%                                       |
| 4                      | 0.054                  | 338                           | 85.2%                  | 100%                                     | 59.3%                  | 92%                                      | 53.7%                  | 92%                                      |
| TOTALS                 | 0.944                  | 1,964                         | 61.0%                  | 68%                                      | 38.3%                  | 39%                                      | 11.8%                  | 29%                                      |

Based on the Existing Coverage Drive Test for 2100MHz, PierCon Solutions has confirmed a significant gap in suburban inbuilding coverage exists for this area. In addition, the proposed site at 140ft would resolve most of this significant gap in suburban inbuilding coverage.

Furthermore, PierCon Solutions has determined that 140ft is the minimum height required because further height reductions below 140ft result in a significant loss in coverage.

- Lowering the height from 140ft to 120ft results in a reduction in area of resolved gap changing from 61% to 38% (24% of the coverage benefit is lost). In addition, the residential population in resolved gap changes from 68% to 39% (29% of the coverage benefit is lost)
- Lowering the height from 140ft to 100ft results in a reduction in area of resolved gap changing from 61% to 11.8% (49.2% of the coverage benefit is lost). In addition, the residential population in resolved gap changes from 68% to 29% (39% of the coverage benefit is lost)

Table 2 - Summary of Results for 700 MHz Site Evaluation Test

| 700MHz Results         |                        |                               | Proposed at 140ft      |                                          | Proposed at 120ft      |                                          | Proposed at 100ft      |                                          |
|------------------------|------------------------|-------------------------------|------------------------|------------------------------------------|------------------------|------------------------------------------|------------------------|------------------------------------------|
| Significant Gap Area # | Area of Gap (sq miles) | Residential Population in Gap | % Area of Resolved Gap | % Residential Population in Resolved Gap | % Area of Resolved Gap | % Residential Population in Resolved Gap | % Area of Resolved Gap | % Residential Population in Resolved Gap |
| 2                      | 0.07                   | 148                           | 100.0%                 | 100%                                     | 100.0%                 | 100%                                     | 92.9%                  | 86%                                      |
| 3                      | 0.18                   | 449                           | 77.8%                  | 93%                                      | 22.2%                  | 11%                                      | 0.0%                   | 0%                                       |
| TOTALS                 | 0.25                   | 597                           | 84.0%                  | 95%                                      | 44.0%                  | 33%                                      | 26.0%                  | 21%                                      |

Based on the Existing Coverage Drive Test for 700MHz, PierCon Solutions has confirmed a significant gap in suburban inbuilding coverage exists for this area. In addition, the proposed site at 140ft would resolve most of this significant gap in suburban inbuilding coverage. The small remaining portion of significant gap Area #3 cannot be covered at any height due to the terrain blocking the northern side of Lake Lincolnale.

Furthermore, PierCon Solutions has determined that 140ft is the minimum height required because further height reductions below 140ft result in a significant loss in coverage.

- Lowering the height from 140ft to 120ft results in a reduction in area of resolved gap changing from 84% to 44% (40% of the coverage benefit is lost). In addition, the residential population in resolved gap changes from 95% to 33% (62% of the coverage benefit is lost)
- Lowering the height from 140ft to 100ft results in a reduction in area of resolved gap changing from 84% to 26% (58% of the coverage benefit is lost). In addition, the residential population in resolved gap changes from 95% to 21% (74% of the coverage benefit is lost)

PierCon Solutions concludes that the minimum height required for the proposed site is 140ft.

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## 7 COVERAGE PROPAGATION ANALYSIS

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Documentary evidence regarding the need for the proposed telecommunications facility at the proposed location was obtained by PierCon Solutions from Verizon Wireless' radio coverage planning tool called Atoll. Atoll is used in 140 countries and are used by Verizon Wireless, AT&T, Sprint, and many other service providers throughout the world. The propagation data provided was used to produce propagation coverage maps indicating the locations where reliable service is being provided by Verizon Wireless' wireless communications facilities.

As previously demonstrated above, within the current network of sites for Verizon Wireless, gaps in coverage currently exist for all four (4) FCC licensed frequency bands for Verizon Wireless (700, 850, 1900, and 2100 MHz). In order to help support the analysis and conclusions from the Drive Testing analysis, PierCon also analyzed the propagation data. As always, there can be some degree of variation between the precise coverage boundaries between Drive Test data and Propagation analysis. This is due to the difference in methodology - Drive Test data is based on real-world measurements where the environmental factors that cause signal attenuation apply their real-world effects on the signal strength measurements; however, it is only collected on the roadways. Whereas propagation analysis is based on computer simulations using tuned models, terrain databases and clutter attenuation values which could demonstrate some difference from drive test data. Although Drive Test data is considered a more accurate form of data for this analysis, the propagation data can serve as additional support.

PierCon Solutions obtained propagation data for the highest and lowest frequency bands (700 & 2100 MHz) to demonstrate the best case and worst case (respectively) performing frequency bands with regard to coverage and to compare to the results from the Drive Test data. Based on the comparison, the significant gaps in coverage previously discussed are validated with the propagation maps. Please refer to the following exhibits:

- **Exhibit K – Existing Verizon Wireless Suburban 2100MHz In-Building LTE Coverage**
- **Exhibit L – Existing Verizon Wireless Suburban 700MHz In-Building LTE Coverage**

### **2100 MHz Suburban In-Building Coverage Gap (from Propagation):**

Attached hereto is Exhibit K which represents Verizon Wireless' existing 2100 MHz in-building residential in-building coverage. Exhibit K demonstrates that the same four significant gap areas (previous discussed with drive test data) also have a significant gap in suburban inbuilding coverage.

### **700 MHz Suburban In-Building Coverage Gap (from Propagation):**

From Exhibit L, it can be observed based on 700MHz propagation that the same two significant gap areas (previous discussed with drive test data) also have a significant gap in suburban inbuilding coverage.

### **2100 MHz Existing + Proposed (w/ 137ft Antenna Centerline) Suburban In-Building Coverage (from Propagation):**

Please refer to the following exhibit: **Exhibit M – Existing + Proposed Verizon Wireless Suburban 2100MHz In-Building LTE Coverage at 137'**

From Exhibit M, the propagation analysis demonstrations for all four of the 2100MHz Significant gap areas (Area 1,2,3,4) have very similar results found with the Drive Test analysis which are summarized in Table 1 above. The Proposed Site location with 137' Antenna Centerline (140' overall structure height) is capable of resolving most of the significant gap in coverage at Significant gap Areas 1, 2 and 4 and has marginal effect on Significant gap Area 3. Given these results are very similar to the results from drive test analysis, PierCon Solutions confirms the 2100MHz propagation analysis supports the conclusions made from the drive test analysis.

**700 MHz Existing + Proposed (w/ 137ft Antenna Centerline) Suburban In-Building Coverage (from Propagation):**

Please refer to the following exhibit: **Exhibit N – Existing + Proposed Verizon Wireless Suburban 700MHz In-Building LTE Coverage at 137'**

From Exhibit N, the propagation analysis demonstrations for both of the 700MHz Significant gap areas (Area 2,3) have very similar results found with the Drive Test analysis which are summarized in Table 2 above. The Proposed Site location with 137' Antenna Centerline (140' overall structure height) is capable of resolving the significant gap in coverage at Significant gap Areas 2 and 3. Given these results are very similar to the results from drive test analysis, PierCon Solutions confirms the 700MHz propagation analysis supports the conclusions made from the drive test analysis.

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**8 VERIZON WIRELESS'S SERVICE AND PERFORMANCE GOALS ARE DEMONSTRATED BY KEY PERFORMANCE INDICATOR (KPI) DATA**

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In addition to confirming that Verizon Wireless has a significant gap in both 700 MHz and 2100 MHz 4G LTE coverage with Drive Test Maps and Coverage Maps, PierCon Solutions have also evaluated Verizon Wireless's Key System Performance Indicator Data ("KPI Data"). The KPIs utilized consist of call access failure rates and drop call failure rates from Verizon Wireless' existing antennas providing signal to the area identified in and surrounding the Glenacom area. The KPI Data analyzed and provided herein is for 4G LTE services. For 4G LTE services, Verizon utilizes its 700 MHz, 850 MHz, 1900 MHz and 2100 MHz bands.

The drop call rate and call access failure rate are two performance indicators of a wireless network having a gap in reliable service, or in this case the inability to provide reliable service due to lack of sufficient coverage or poor signal quality. Call access failures, or setup failures, meaning the inability for a customer to place a call, are indicators that the signal strength and/or quality are unreliable such that calls, or data sessions are unable to be established at the will of the customer. Dropped calls, meaning calls that are prematurely ended by the network rather than the customer, are an indicator that the signal strength and/or signal quality is unreliable such that voice calls or data connections are disconnected. PierCon Solutions was able to confirm Verizon Wireless's significant gap in service and the need for the proposed site by analyzing actual system performance data for the existing sites in and surrounding the Glenacom area.

The LTE network manages connections in a priority order based upon signal quality. This allows for the ability to support users at a high level of capacity and throughput to ensure a positive user experience. As noted herein, the coverage characteristics of each frequency band differ with respect to coverage range. The lower bands (700 MHz) provide the largest coverage range whereas the mid band (2100 MHz) provides the least range. Through LTE users have the ability to access bandwidth from different frequency bands provided the user is within coverage range of each band. This is called carrier aggregation and it allows for higher capacity and throughput. Users located close to a transmitter site typically will have access to all the frequency bands deployed. Whereas users located further away may only have access to the 700 MHz or 850 MHz bands. Furthermore, transient users (moving from area to area) will transition from the higher bands to the lower bands, which is called "hand-down" as they move away from a site and the frequency they originated on (2100 or 1900) become weak they will move to a lower frequency band. Observing the KPI data one will typically see the higher amount of drop calls and access failures on the 700 MHz band. This is due to the fact that when no other frequency band is available due to their coverage limitations, only the 700 MHz band remains. When the 700 MHz signal is inadequate users cannot access the network or users' connections drop.

The KPI charts include 4G dropped call performance data and access failure data for Verizon Wireless's facilities surrounding the subject area. The data collected consists of a 1-month period from October 18, 2022, through November 16, 2022, and is based on the daily hourly data<sup>2</sup>. Drop calls, due to unreliable service, will demonstrate even greater

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<sup>2</sup> KPI data was refreshed to include current 1-month data from October 18, 2022, through November 16, 2022.

problems once the foliage comes out. The charts analyzed and provided herein are for the sites and sectors pointing towards the gap area. The drop call percentages and the access failure percentages further demonstrate with actual call data that Verizon Wireless has a significant gap in reliable wireless service in the areas surrounding the proposed site. Any dropped call or access failure can be deemed unacceptable to a wireless customer, particularly in an emergency situation. Verizon Wireless has established that a dropped call rate greater than 1% or an access failure rate greater than 2% is a measure of unreliable wireless coverage. This criteria are consistent with industry standards. Please refer to the following charts below for the 4G KPI data:

The four existing sectors that point towards the Glenacom area provide signal to the area and therefore are relevant. These sectors are:

- Yorktown Heights 2 – Alpha Sector (antenna azimuth = 92 degrees ETN)
- Mahopac Falls – Alpha Sector (antenna azimuth 102 degrees ETN)
- Heritage Hills – Beta Sector (antenna azimuth = 222 degrees ETN)
- Lincolndale – Gamma Sector (antenna azimuth = 305 degrees ETN)

Please refer to the following Exhibits for the 4G KPI data for these four sectors:

- **Exhibit O - Yorktown Heights 2 – Alpha Sector Drop Call Rate (700MHz)**
- **Exhibit P - Lincolndale – Gamma Sector Drop Call Rate (700MHz)**
- **Exhibit Q - Lincolndale – Gamma Sector Drop Call Rate (850MHz)**
- **Exhibit R - Lincolndale – Gamma Sector Drop Call Rate (1900MHz)**
- **Exhibit S - Lincolndale – Gamma Sector Drop Call Rate (2100MHz)**
- **Exhibit T - Lincolndale – Gamma Sector Access Failure Rate (700MHz)**
- **Exhibit U - Heritage Hills – Beta Sector Drop Call Rate (700MHz)**
- **Exhibit V - Heritage Hills – Beta Sector Drop Call Rate (850MHz)**
- **Exhibit W - Heritage Hills – Beta Sector Drop Call Rate (1900MHz)**
- **Exhibit X - Heritage Hills – Beta Sector Drop Call Rate (2100MHz)**
- **Exhibit Y - Heritage Hills – Beta Sector Access Failure Rate (700MHz)**
- **Exhibit Z - Mahopac Falls – Alpha Sector Drop Call Rate (700 MHz)**
- **Exhibit AA – Mahopac Falls – Alpha Sector Access Failure Rate (700 MHz)**

Table 3 – Summary of KPI Data

The summary table below demonstrates that users may be able to access the LTE network on the higher bands but they cannot maintain connections as the move away from the serving sites towards the gap area. This is evident in the high drop call rates and access failure rates on the 700 MHz band. As noted earlier, the 700 MHz band provides the largest coverage range whereas all users transitioning into a gap area will ultimately drop calls and not be able to access the LTE network.

| Site & Sector                  | 700 MHz %<br>Days Above<br>1% Drop Rate           | 850 MHz %<br>Days Above<br>1% Drop Rate           | 1900 MHz %<br>Days Above<br>1% Drop Rate           | 2100 MHz %<br>Days Above<br>1% Drop Rate           |
|--------------------------------|---------------------------------------------------|---------------------------------------------------|----------------------------------------------------|----------------------------------------------------|
| Heritage Hills Beta (87')      | 100%                                              | 50%                                               | 7%                                                 | 17%                                                |
| Lincolndale Gamma (106')       | 100%                                              | 30%                                               | 20%                                                | 30%                                                |
| Yorktown Heights 2 Alpha (96') | 70%                                               | n/a                                               | 7%                                                 | 3%                                                 |
| Mahopac Falls Beta (121')      | 100%                                              | 13%                                               | 7%                                                 | 7%                                                 |
|                                |                                                   |                                                   |                                                    |                                                    |
| Site & Sector                  | 700 MHz %<br>Days Above<br>1% Access<br>Fail Rate | 850 MHz %<br>Days Above<br>1% Access<br>Fail Rate | 1900 MHz %<br>Days Above<br>1% Access<br>Fail Rate | 2100 MHz %<br>Days Above<br>1% Access<br>Fail Rate |
| Heritage Hills Beta (87')      | 100%                                              | 0%                                                | 0%                                                 | 0%                                                 |
| Lincolndale Gamma (106')       | 23%                                               | 0%                                                | 0%                                                 | 0%                                                 |
| Yorktown Heights 2 Alpha (96') | 7%                                                | n/a                                               | 0%                                                 | 0%                                                 |
| Mahopac Falls Beta (121')      | 7%                                                | 0%                                                | 0%                                                 | 0%                                                 |

The KPI exhibits demonstrate that Verizon Wireless’s 4G network is not able to provide reliable service due to a significant gap in the area. The KPI for drop call rate greatly exceed 1% which are the industry standard for reliable performance.

The KPI exhibits also demonstrates that while users may be able to access the LTE network on some bands and some instances, ultimately at the 700 MHz largest coverage range frequency band access failures often exceed the 2% standard.

The data presented is an indicator of the lack of reliable service. This presented along with the drive test analysis and coverage maps further substantiates the specific location and significance of the gap area.

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## 9 ALTERNATIVE CANDIDATES EVALUATED

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In addition to evaluating the proposed site, PierCon Solutions also analyzed four alternative candidates. These four sites can be described as:

- Alternative Site #1: 195 Route 6 Mahopac, NY
  - Lat/Long: 41.3498856, -73.75277778
  - Structure: Existing 81 ft flagpole
  - Antenna Height: 137 feet (assuming it can be rebuilt to 140ft structure)
- Alternative Site #2: Willow Wood Rifle Club, 545 Union Valley Rd, Mahopac, NY
  - Lat/Long: 41.3529333, -73.70713889
  - Structure: Raw Land
  - Antenna Height: 137 ft
- Alternative Site #3: Commercial/Business Park property along Rt 6.
  - Lat/Long: 41.349382347, -73.748887129
  - Structure: Raw Land
  - Antenna Height: 137 ft
- Alternative Site #4: Commercial/Business Park property just south of Silver Gate Road
  - Lat/Long: 41.34778176, -74.743918
  - Structure: Raw Land
  - Antenna Height: 137 ft

Refer to the following exhibits for an analysis of these four alternate locations and their ability to remedy the significant gaps defined herein:

- **Exhibit AK – Alternative Candidate #1 Suburban 700MHz In-Building LTE Coverage**
- **Exhibit AL – Alternative Candidate #2 Suburban 700MHz In-Building LTE Coverage**
- **Exhibit AM – Alternative Candidate #3 Suburban 700MHz In-Building LTE Coverage**
- **Exhibit AN – Alternative Candidate #4 Suburban 700MHz In-Building LTE Coverage**
- **Exhibit AO – Alternative Candidate #4 Suburban 2100MHz In-Building LTE Coverage**

In Exhibits AK through AO, the green shaded area represents the potential Suburban 700MHz In-Building Reliable Coverage. Also displayed as a blue shaded area are the Verizon 700MHz significant gap areas which are the coverage objectives. As noted earlier, 700 MHz provides the greatest range in signal. Therefore where 700 MHz cannot meet the coverage objectives neither can 2100 MHz; and therefore only 700 MHz plots were provided. Exhibit AO demonstrates 2100 MHz coverage from Alternate Candidate #4.

### **Alternative Candidate #1**

From Exhibit AK, it can be observed that Alternative Candidate #1 does not have the ability to fill the gaps in 700Mhz coverage. This site location is too far west. The location is 5000ft west of significant gap Area 2 and 7300ft from

significant gap Area 3. Due to the locations away from the gap area and the surrounding terrain Alternate Candidate #1 is not a viable candidate.

**Alternative Candidate #2**

From Exhibit AL, it can be observed that Alternative Candidate #2 does not have the ability to fill the gaps in 700Mhz coverage. This location is too far east and blocked by terrain. The location is 6900ft east of significant gap Area 2 and 5100ft from significant gap Area 3. Due to the locations away from the gap area and the surrounding terrain Alternate Candidate #2 is not a viable candidate.

**Alternative Candidate #3**

From Exhibit AM, it can be observed that Alternative Candidate #3 does not have the ability to fill the gaps in 700Mhz coverage. This site location is too far west. The location is 3900ft west of significant gap Area 2 and 6200ft from significant gap Area 3. Due to the locations away from the gap area and the surrounding terrain Alternate Candidate #3 is not a viable candidate.

**Alternative Candidate #4**

From Exhibit AN, it can be observed that Alternative Candidate #4 does not have the ability to fill the gaps in 700Mhz coverage. This site location is the closest possible location within a commercial zone. The location is 2400ft west of significant gap Area 2 and 4700ft from significant gap Area 3. It does have the ability to partially cover significant gap Area 2, but it is blocked by terrain from providing any reliable coverage to Significant gap Area 3.

Exhibit AO is an additional exhibit for Alternative Candidate #4 demonstrating coverage at the 2100 MHz frequency band. In terms of 2100MHz reliable coverage, Alternative Candidate #4 has the ability to partially cover significant gap Area 1 but cannot provide reliable coverage to significant gap areas 2, 3 and 4. Due to the locations away from the gap area and the surrounding terrain Alternate Candidate #4 is not a viable candidate.

As previously discussed, based on the terrain in this area and the significant gap areas identified, only a site location that is centrally located near the peak of Summit Circle Drive has the ability to resolve all four significant gap areas. The only candidate available that can meet the coverage objectives is the proposed candidate at the end of Walton Drive.

In conclusion, the proposed facility at Walton Drive remedies the significant gap in coverage by providing suburban in-building reliable coverage to the surrounding residential areas identified as significant gap Areas 1 through 4.

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**10 RADIO FREQUENCY ENGINEERING RESPONSES TO THE WIRELESS TELECOMMUNICATIONS ORDINANCE**

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The following section of the report addresses the RF Engineering responses to Town of Carmel's Wireless telecommunications service facilities ordinance. Each section of the checklist is provided, and the RF Engineering responses immediately follow.

156-62. Wireless Telecommunications Structures and Facilities

- G. Facility service plan. All proposals to provide or operate wireless telecommunications facilities shall be accompanied by a facility service plan, which shall include all the information necessary to allow the Planning Board to understand the existing, proposed and long-range plans of the applicant. The facility service plan shall include at least the following information:
  - (1) The location, height and operational characteristics of all existing facilities of the applicant in and immediately adjacent to the Town.

- (2) A two-to-five-year plan for the provision of additional facilities in and immediately adjacent to the Town, indicating whether each proposed facility is for initial coverage or capacity-building purposes and showing proposed general locations or areas in which additional facilities are expected to be needed. Subsequent applications will confirm or modify the facility service plan so that the Planning Board may be kept up to date on future activities.
- (3) A commitment to collocate or allow collocation wherever possible on all existing and proposed facilities

Response: Please refer to the following Exhibits:

- **Exhibit AP – Town of Carmel (Existing, Proposed, Approved and Future Verizon Wireless Sites)**
- **Exhibit AQ – Detailed Site Table**

I. Location of wireless telecommunications facilities.

- (1) Applicants for wireless telecommunications facilities shall locate, site and erect said wireless telecommunications facilities, including towers and other tall structures, in accordance with the following priorities, one being the highest priority and six being the lowest priority:

| <b>Priority Level</b> | <b>Description</b>                                                                                   |
|-----------------------|------------------------------------------------------------------------------------------------------|
| 1                     | On existing tall structures or wireless telecommunications towers in nonresidential zoning districts |

Response to Priority 1:

*The nearest nonresidential zoning district is a Commerce/Business Park zoning district located approximately 1.0 mile to the west and is approximately 100 feet lower in ground elevation. Due to this distance and substantial ground elevation difference, locating a facility in this Commerce/Business Park zoning district or one of the further nonresidential zoning districts is not feasible because it would result in primarily redundant coverage with existing sites named “Yorktown Heights 2” and “Mahopac 3 SC”.*

*There are no existing tall structures in non-residential zones that can meet the coverage objectives. The closest tall structure was evaluated (see analysis of Alternative Candidate #1 and Exhibit AK) and it was not able to meet the coverage objectives. In addition, the closest possible location within the commercial zone was evaluated as a raw land candidate (see analysis of Alternative Candidate #4 and Exhibits AN and AO) and it was not able to meet the coverage objectives.*

*For additional reference, please refer to the following Exhibits:*

- **Exhibit AR– Glenacom (Existing Verizon Wireless Sites on Town Zoning Map)**
- **Exhibit AS – Glenacom (Existing Verizon Wireless Suburban 700 MHz In-Building LTE Coverage Sites on Town Zoning Map)**

- (2) Collocation on a site with existing wireless telecommunications towers or structures in nonresidential districts, not fronting on NYS Routes 6, 6N, 52 and 301

Response to Priority 2: (Same response as Priority 1 regarding Alternative Candidate #1)

- (3) Collocation on a site with existing wireless telecommunications towers or structures in any other nonresidential districts

Response to Priority 3: (Same response as Priority 1 regarding Alternative Candidate #1)

- (4) Installation of a new wireless telecommunications facility in any nonresidential district

Response to Priority 4: (Same response as Priority 1 regarding Alternative Candidate #4)



- (5) Installation of a new wireless telecommunications facility in any residential district

*Response to Priority 5: The Proposed Site at the end of Walton Drive meets Priority 5 criteria*

- (6) On other property in the Town

*Response to Priority 6: The Proposed Site at the end of Walton Drive meets Priority 5 criteria*

L. New wireless telecommunications towers.

- (1) The applicant shall demonstrate to the satisfaction of the Planning Board that there exists no tower on which the antenna may collocate or that collocation is not feasible for any of the following reasons:

- (d) The applicant's network of antenna locations is not adequate to properly serve its customers, and the use of facilities of other entities is not suitable for physical reasons.

*Response: As discussed in detail above regarding the priority 1 area, there are no existing towers available that can meet the coverage objectives.*

- (e) Adequate and reliable service cannot be provided from existing sites in a financially and technologically feasible manner consistent with the service providers' system requirements.

*Response: The existing sites which are shown in all the exhibits are not able to have their coverage extended through any technological enhancements. The limiting factor of how far a site can provide coverage is the mobile device since it has a limited power output.*

- (f) Existing sites cannot accommodate the proposed antenna due to structural or other engineering limitations (e.g., frequency incompatibilities).

*Response: The existing sites, as demonstrated by the exhibits herein, are already being utilized. Coverage signal and signal quality is not able to cover the gap area from the existing sites. There are no other existing structures within our search area and therefore a new tower structure is required.*

O. Bulk regulations and height.

- (2) In residential districts, wireless telecommunications facilities shall not exceed 50 feet in height unless the requirements of Subsection O(3) below are met. In nonresidential districts, wireless telecommunications facilities shall not exceed 100 feet in height unless the requirements of Subsection O(3) below are met.

*Response: Locating any part of the antennas below the tree line (median tree height for this area is approximately 80ft) severely affects the ability of a site to provide coverage to the surrounding area. Antennas must be located above the tree line in order to properly function and achieve their goals.*

*As demonstrated through our drive test a facility below 140' does not remedy the significant gap in coverage. In addition, the proposed site at 140ft would resolve most of this significant gap in suburban inbuilding coverage. The small remaining portion of significant gap Area #3 cannot be covered at any height due to the terrain blocking the northern side of Lake Lindalale.*

- (3) In the event that applicants propose a height greater than that listed above, the applicant must demonstrate to the satisfaction of the Planning Board that:

- (a) Alternative means of mounting the antenna have been considered and are not feasible for the applicant.

*Response: To provide effective coverage and capacity (throughput) to the area the minimum antenna height was determined to be at an elevation of 140' or higher from the proposed location.*

(b) The height is the minimum height necessary for adequate operation to meet the applicants' communications needs and the aesthetic intrusion has been minimized to the greatest extent practicable.

Response:

*To determine the minimum height a site evaluation drive test was performed. Equivalent heights tested were 100', 120' and 140'. As noted herein the minimum height to provide reliable service has been determined to be 140'.*

(c) The height does not exceed 50% of the maximum height listed in Subsection O(2) above.

Response: *This response assumes that the 50% reference equates to a 75' tower where a 50' tower was permitted in a residential zone and 150' tower where a 100' tower was permitted in a non-residential zone. As demonstrated by our drive test analysis and coverage plots the significant gap cannot be remedied at heights of 100' or lower. 140' was determined to be the minimum height required to meet the coverage objectives. Therefore, we request a waiver to this provision as we have demonstrated it is not possible to achieve our objectives with the tower heights as noted in the wireless code.*

## 11 CONCLUSION:

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PierCon Solutions' analysis of Verizon Wireless' existing network coverage indicates that a significant gap in wireless service exists within the town of Carmel. The gap in service is significant as it is approximately 0.944 square miles and affects 1,964 residents.

The application by Verizon Wireless proposes to construct a new wireless telecommunications facility at Walton Drive, Mahopac, NY. The 140' proposed installation, consisting of antennas at centerline heights of 137' will alleviate coverage deficiencies and provide reliable service as described above.

PierCon Solutions also determined, through drive testing, the minimum height required for the proposed site to resolve the significant gap in coverage to be the 140' level (with 137' antenna centerline). From this height, Verizon would be able to cover 95% of the targeted residents with 700Mhz service and 68% of the targeted residents with 2100MHz service. Heights below 140' would result in some residential neighborhoods to have unreliable coverage. For example, the 120' site would only be able to cover 33% of the targeted residents with 700Mhz service and 39% of the targeted residents with 2100MHz service. This is a substantial loss of service at lower heights potentially requiring the need for additional facilities.

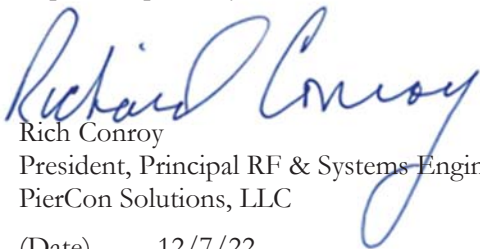
In addition, PierCon Solutions analyzed the standard LTE Key Performance Indicator (KPI) Data and found the drop call rate to be significantly higher than acceptable standards. The KPI exhibits demonstrate that Verizon Wireless's 4G network is not able to provide reliable service due to a significant gap in the area. The KPI for drop call rate greatly exceed 1% which are the industry standard for reliable performance. The data presented is an additional indicator of the lack of reliable service.

PierCon Solutions also evaluated four alternative candidates which included the closest available tower and the closest available property in a non-residential zone. All four candidates could not meet the coverage objectives.

Finally, PierCon performed a thorough review of the wireless code and has addressed each section with respect to the radio frequency perspectives.

The operation of this facility will enable Verizon Wireless to provide reliable wireless 4G LTE service to town of Carmel and to remedy the significant gap in service. After performing the independent radio frequency analysis, PierCon Solutions concludes that this facility is essential to Verizon Wireless' network design for the Town of Carmel and that Verizon Wireless would be materially inhibited from providing reliable service without the facility.

Report Prepared by:

  
Rich Conroy  
President, Principal RF & Systems Engineer  
PierCon Solutions, LLC

(Date) 12/7/22

12 APPENDIX - EXHIBITS

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- Exhibit A – 2100MHz Existing Signal Strength Drive Test Results
- Exhibit B – 1900MHz Existing Signal Strength Drive Test Results
- Exhibit C – 850MHz Existing Signal Strength Drive Test Results
- Exhibit D – 700MHz Existing Signal Strength Drive Test Results
- Exhibit E – 2100MHz Site Evaluation Drive Test Results at 140ft (via test location at 115ft)
- Exhibit F – 2100MHz Site Evaluation Drive Test Results at 120ft (via test location at 95ft)
- Exhibit G – 2100MHz Site Evaluation Drive Test Results at 100ft (via test location at 75ft)
- Exhibit H – 700MHz Site Evaluation Drive Test Results at 140ft (via test location at 115ft)
- Exhibit I – 700MHz Site Evaluation Drive Test Results at 120ft (via test location at 95ft)
- Exhibit J – 700MHz Site Evaluation Drive Test Results at 100ft (via test location at 75ft)
- Exhibit K – Existing Verizon Wireless Suburban 2100MHz In-Building LTE Coverage
- Exhibit L – Existing Verizon Wireless Suburban 700MHz In-Building LTE Coverage
- Exhibit M – Existing + Proposed Verizon Wireless Suburban 2100MHz In-Building LTE Coverage at 137'
- Exhibit N – Existing + Proposed Verizon Wireless Suburban 700MHz In-Building LTE Coverage at 137'
- Exhibit O - Yorktown Heights 2 – Alpha Sector Drop Call Rate (700MHz)
- Exhibit P - Lincolndale – Gamma Sector Drop Call Rate (700MHz)
- Exhibit Q - Lincolndale – Gamma Sector Drop Call Rate (850MHz)
- Exhibit R - Lincolndale – Gamma Sector Drop Call Rate (1900MHz)
- Exhibit S - Lincolndale – Gamma Sector Drop Call Rate (2100MHz)
- Exhibit T - Lincolndale – Gamma Sector Access Failure Rate (700MHz)
- Exhibit U - Heritage Hills – Beta Sector Drop Call Rate (700MHz)
- Exhibit V - Heritage Hills – Beta Sector Drop Call Rate (850MHz)
- Exhibit W - Heritage Hills – Beta Sector Drop Call Rate (1900MHz)

- Exhibit X - Heritage Hills – Beta Sector Drop Call Rate (2100MHz)
- Exhibit Y - Heritage Hills – Beta Sector Access Failure Rate (700MHz)
- Exhibit Z - Mahopac Falls – Alpha Sector Drop Call Rate (700 MHz)
- Exhibit AA – Mahopac Falls – Alpha Sector Access Failure Rate (700 MHz)
- Exhibit AK – Alternative Candidate #1 Suburban 700MHz In-Building LTE Coverage
- Exhibit AL – Alternative Candidate #2 Suburban 700MHz In-Building LTE Coverage
- Exhibit AM – Alternative Candidate #3 Suburban 700MHz In-Building LTE Coverage
- Exhibit AN – Alternative Candidate #4 Suburban 700MHz In-Building LTE Coverage
- Exhibit AO – Alternative Candidate #4 Suburban 2100MHz In-Building LTE Coverage
- Exhibit AP – Town of Carmel (Existing, Proposed, Approved and Future Verizon Wireless Sites)
- Exhibit AQ – Detailed Site Table
- Exhibit AR– Glenacom (Existing Verizon Wireless Sites on Town Zoning Map)
- Exhibit AS – Glenacom (Existing Verizon Wireless Suburban 700 MHz In-Building LTE Coverage Sites on Town Zoning Map)
- Exhibit AT – Calibration Certificate

### Diffraction Loss Formulas

$$v = -hp \sqrt{\frac{2}{\lambda} \left( \frac{1}{r_1} + \frac{1}{r_2} \right)}$$

$$1 \leq v$$

$$L = 0 \text{ dB}$$

$$0 \leq v < 1$$

$$L = 20 \log(0.5 + 0.62v)$$

$$-1 \leq v < 0$$

$$L = 20 \log(0.5e^{0.95v})$$

$$-2.4 \leq v < -1$$

$$L = 20 \log(0.4 - \sqrt{0.1184 - (0.1v + 0.38)^2})$$

$$v < -2.4$$

$$L = 20 \log\left(-\frac{0.225}{v}\right)$$

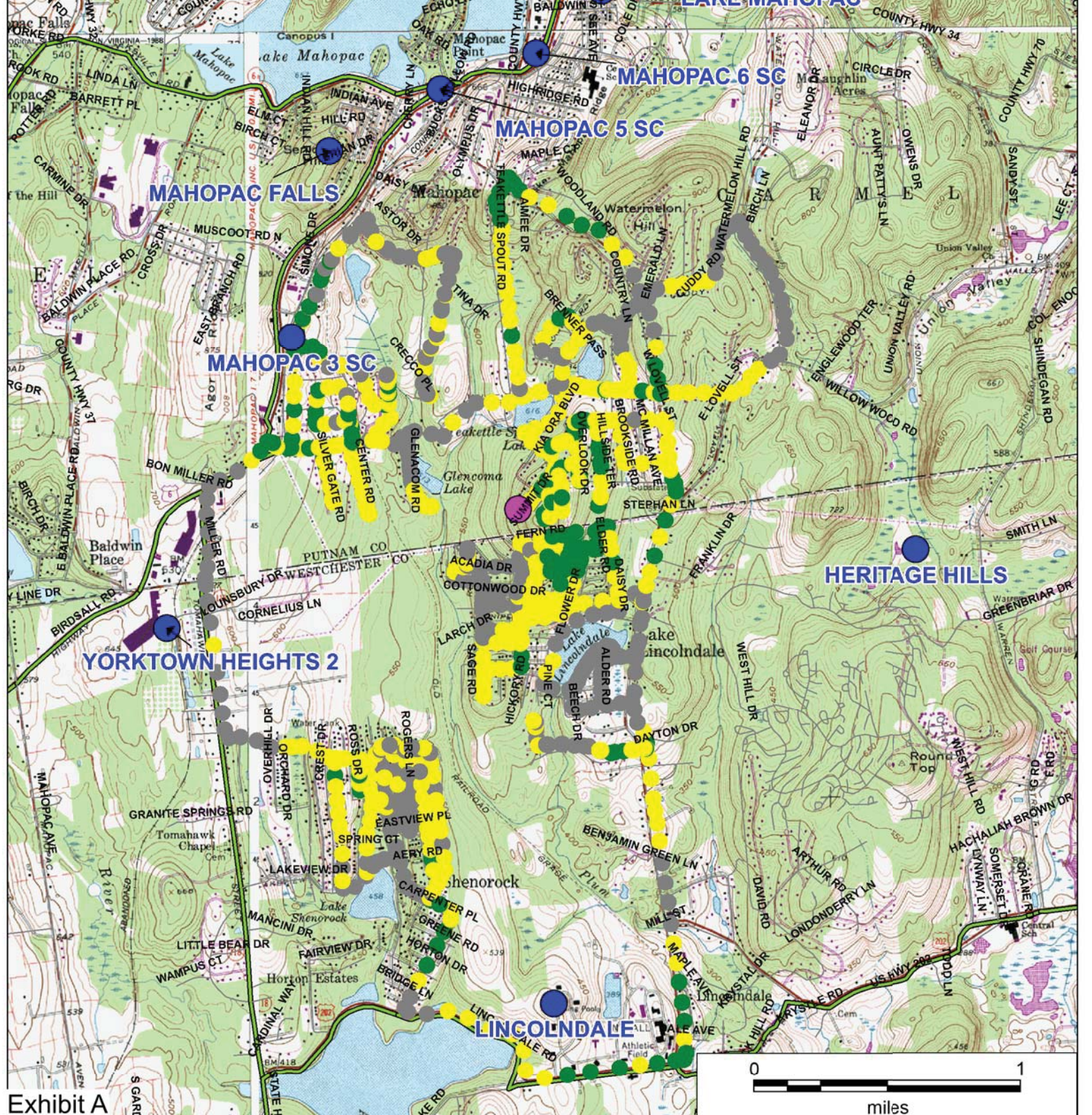


Exhibit A

# Glenacom

2100MHz Existing Signal Strength Drive Test Results

Walton Drive  
Mahopac, NY 10541

- Verizon Wireless Existing Facility
- Verizon Wireless Proposed Location

Existing 2100MHz RSRP Coverage (-7dB for foliage)

- 95dBm <= x
- 105dBm <= x < -95dBm
- 120dBm <= x < -105dBm



Prepared by PierCon  
02/21/2020

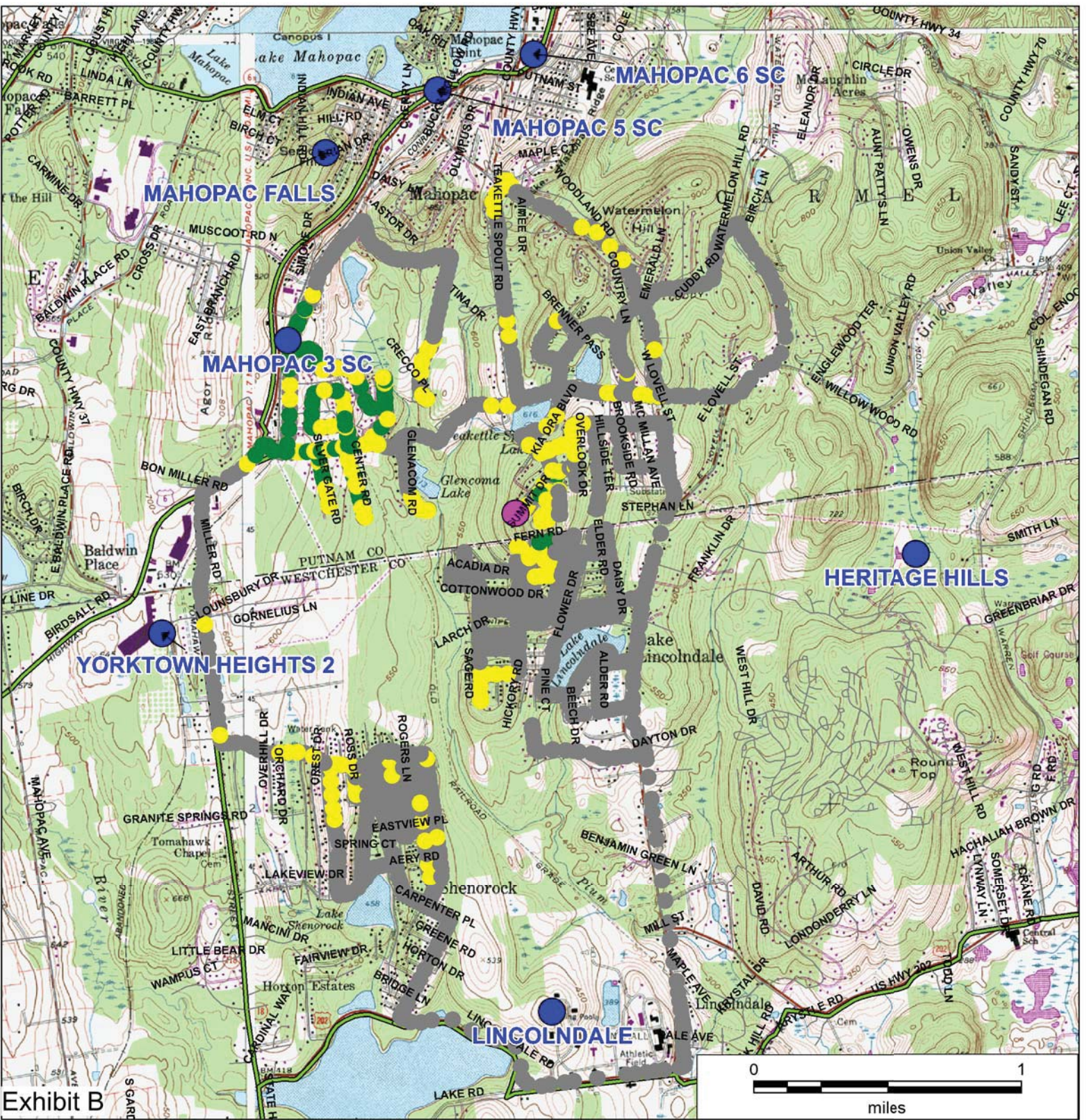


Exhibit B

# Glenacom

1900MHz Existing Signal Strength Drive Test Results

Walton Drive  
Mahopac, NY 10541

- Verizon Wireless Existing Facility
- Verizon Wireless Proposed Location

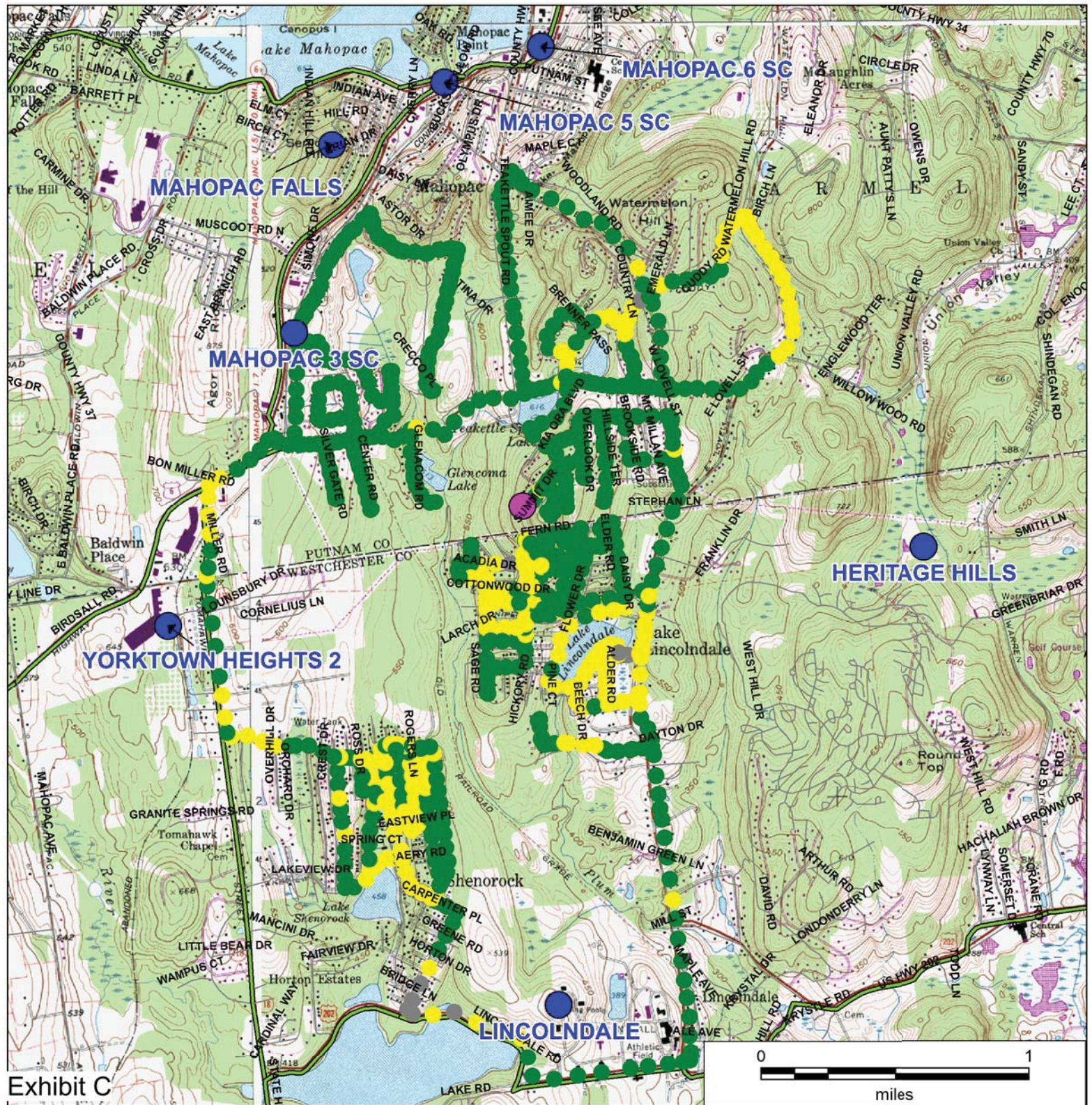
Existing 1900MHz RSRP Coverage (-7dB for foliage)

- 95dBm <= x
- 105dBm <= x < -95dBm
- 120dBm <= x < -105dBm



Prepared by PierCon  
02/21/2020





# Glenacom

850MHz Existing Signal Strength  
Drive Test Results

Walton Drive  
Mahopac, NY 10541

- Verizon Wireless Existing Facility
- Verizon Wireless Proposed Location

Existing 850MHz RSRP Coverage  
(-7dB for foliage)

- 95dBm <= x
- 105dBm <= x < -95dBm
- 120dBm <= x < -105dBm



Prepared by PierCon  
02/21/2020

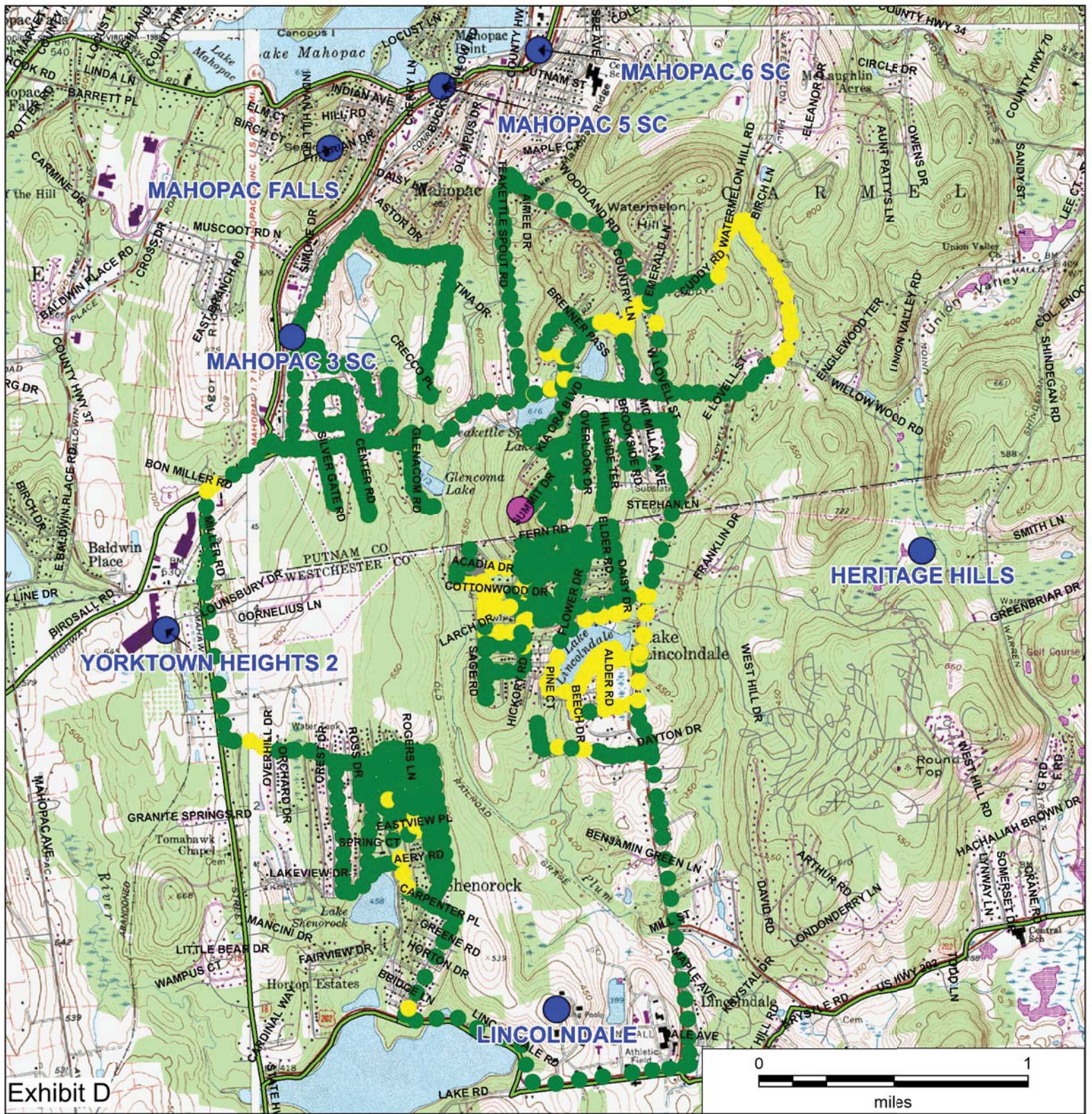


Exhibit D

# Glenacom

700MHz Existing Signal Strength  
Drive Test Results

Walton Drive  
Mahopac, NY 10541

- Verizon Wireless Existing Facility
- Verizon Wireless Proposed Location

Existing 700MHz RSRP Coverage  
(-7dB for foliage)

- 95dBm <= x
- 105dBm <= x < -95dBm
- 120dBm <= x < -105dBm



Prepared by PierCon  
02/21/2020

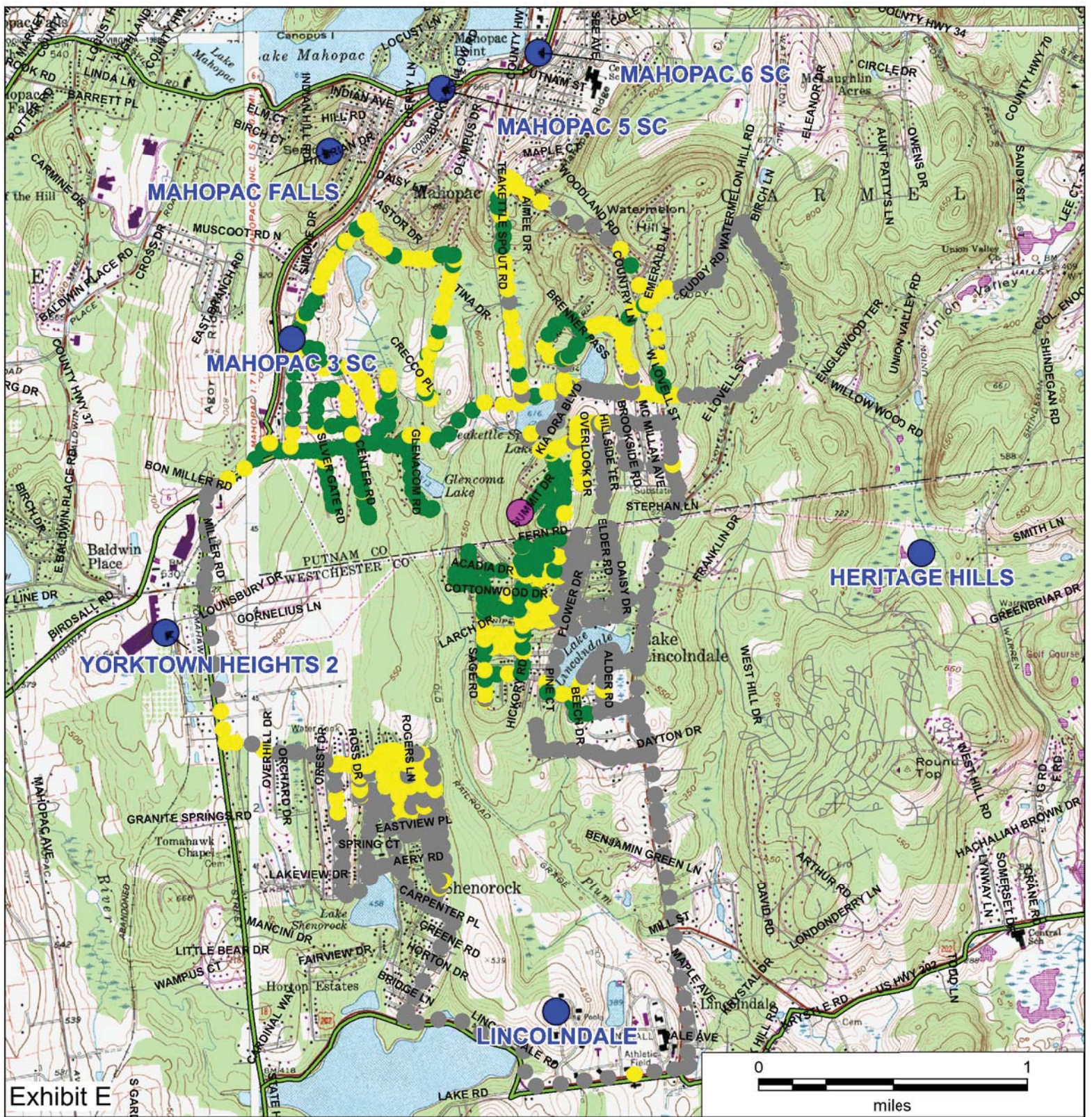


Exhibit E

## Glenacom

2100MHz Site Evaluation  
 Drive Test at 140ft  
 (via test location at 115ft)

Walton Drive  
 Mahopac, NY 10541  
 Page 5 of 37

- Verizon Wireless Existing Facility
- Verizon Wireless Proposed Location

CW Test 2100MHz RSSI Coverage at 140ft  
 (-7dB for foliage + 2.7dB correction factor)

- 95dBm <= x
- 105dBm <= x < -95dBm
- 120dBm <= x < -105dBm



Prepared by PierCon  
 02/21/2020

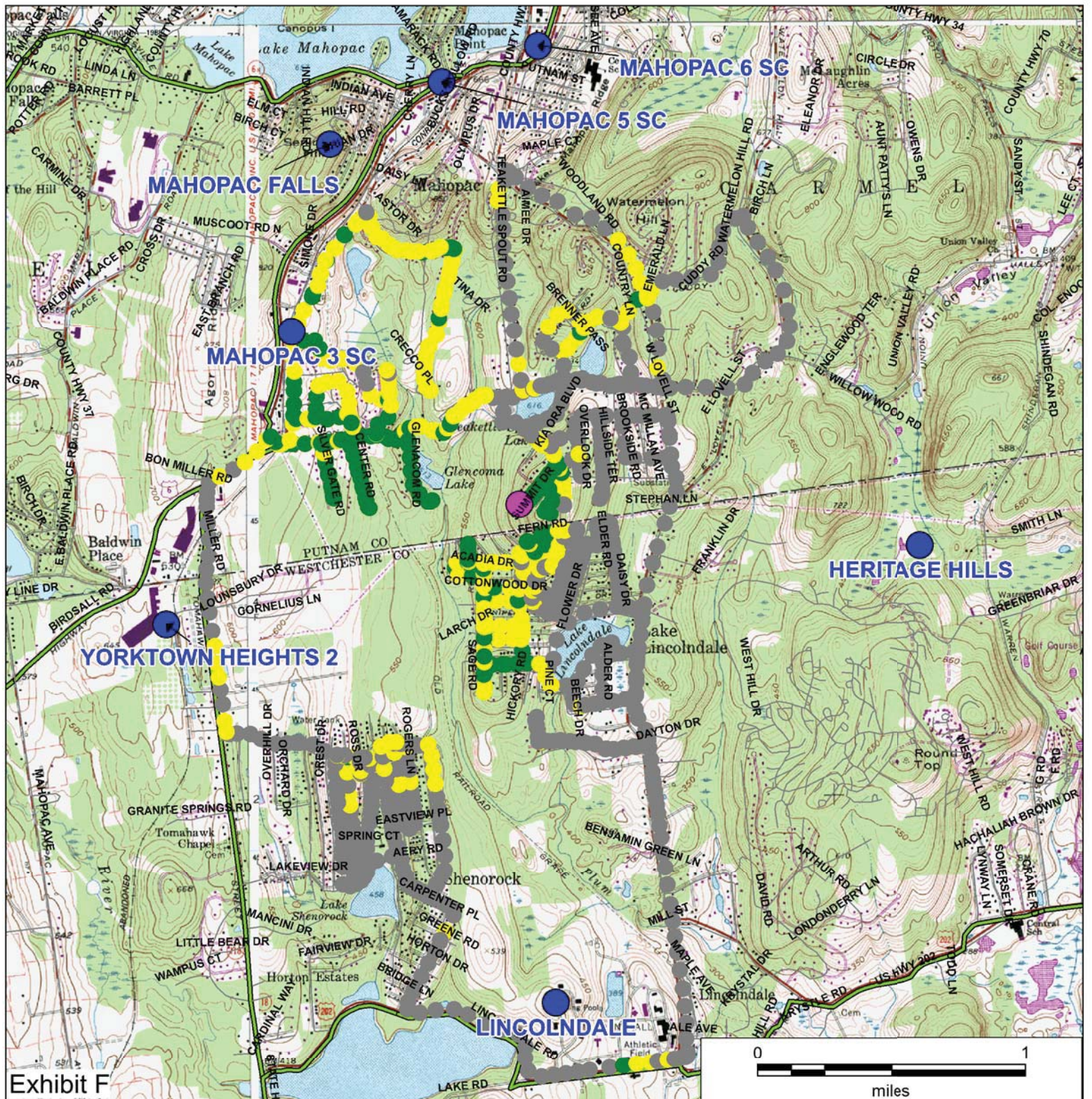



Exhibit F

### Glenacom




2100MHz Site Evaluation  
 Drive Test at 120ft  
 (via test location at 95ft)

Walton Drive  
 Mahopac, NY 10541  
 Page 6 of 37

 Verizon Wireless Existing Facility

 Verizon Wireless Proposed Location

CW Test 2100MHz RSSI Coverage at 120ft  
 (-7dB for foliage + 2.7dB correction factor)

-  -95dBm <= x
-  -105dBm <= x < -95dBm
-  -120dBm <= x < -105dBm



Prepared by PierCon  
 02/21/2020

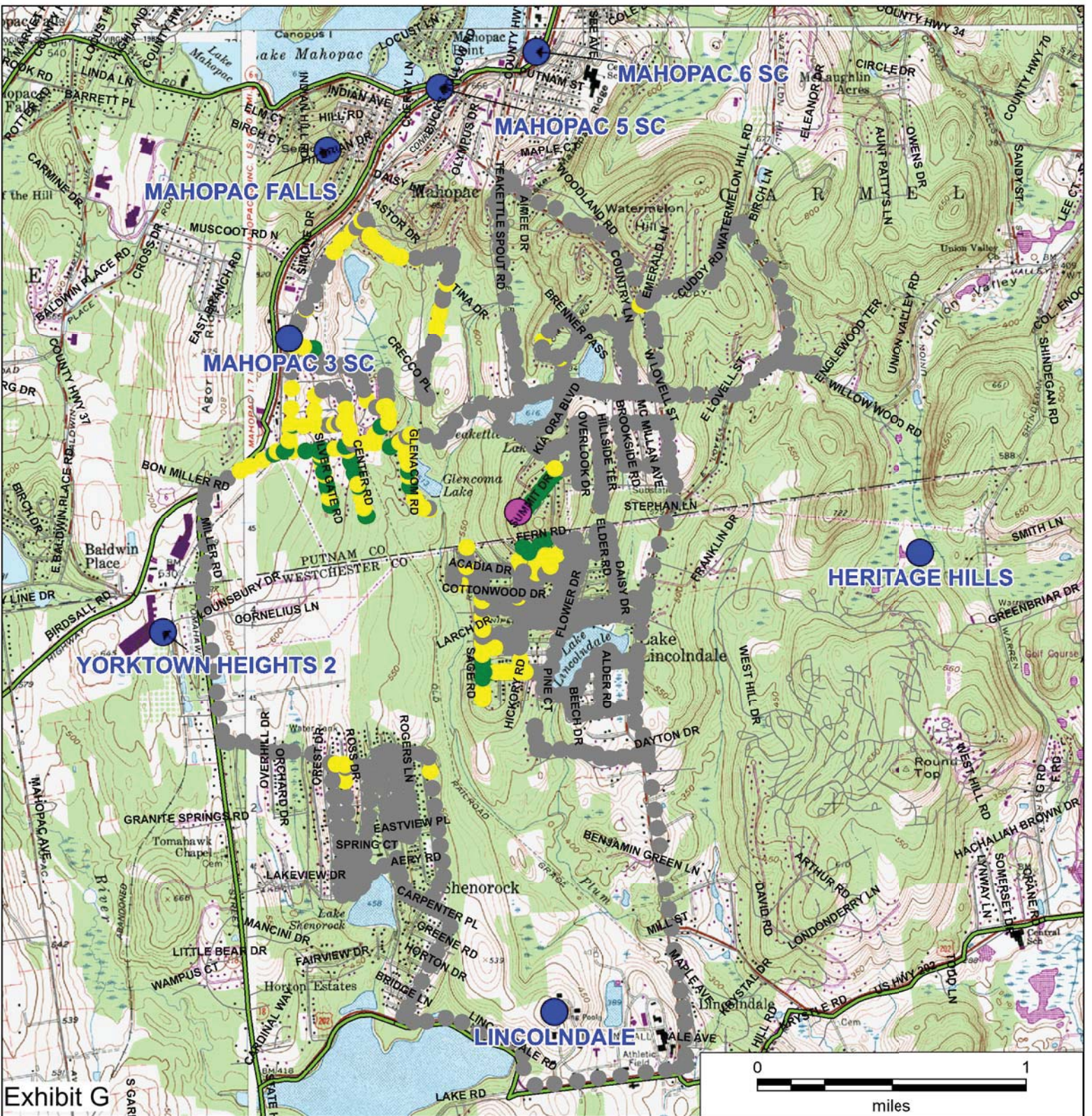


Exhibit G

## Glenacom

2100MHz Site Evaluation  
 Drive Test at 100ft  
 (via test location at 75ft)

Walton Drive  
 Mahopac, NY 10541  
 Page 7 of 37

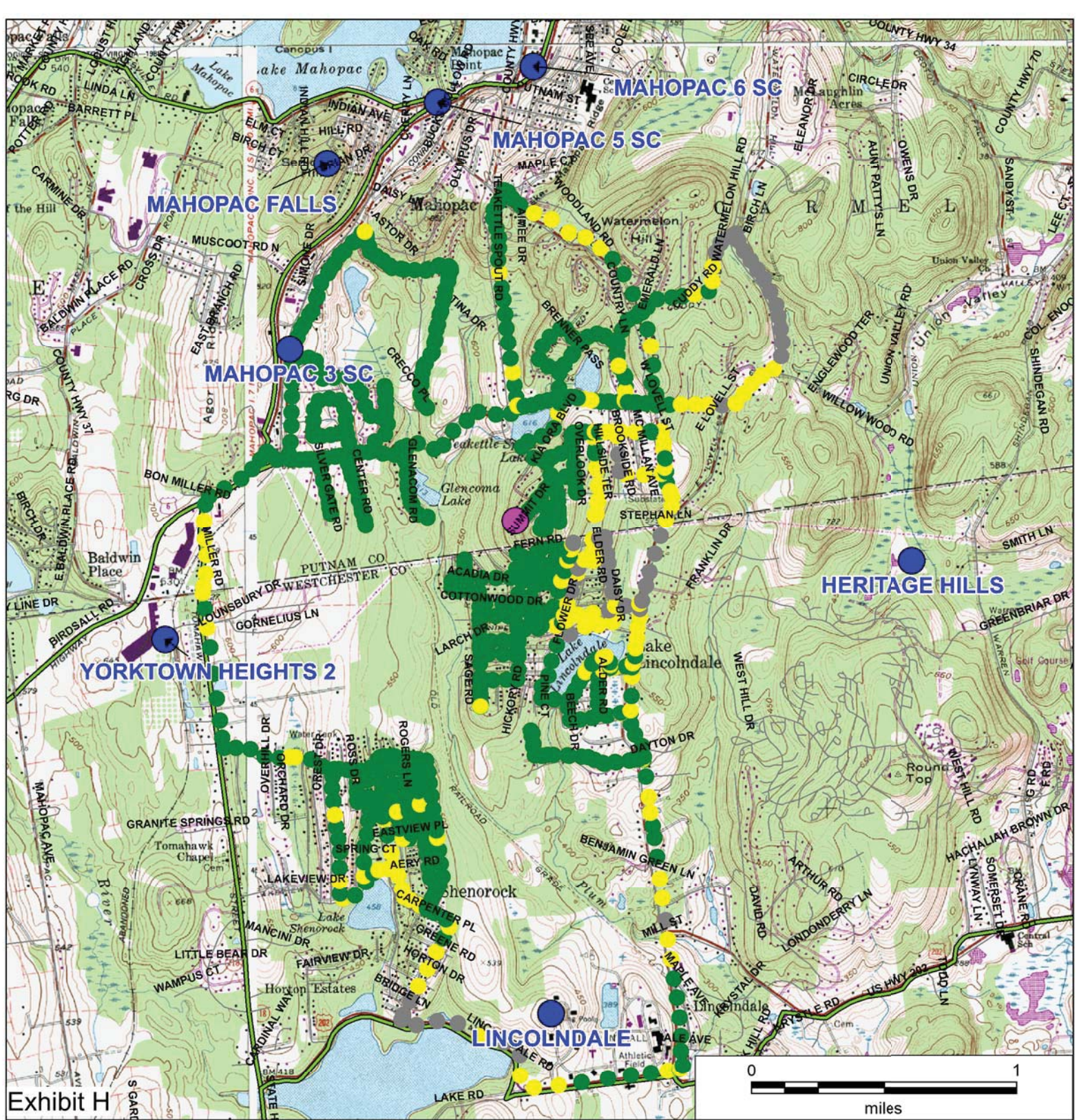
- Verizon Wireless Existing Facility
- Verizon Wireless Proposed Location

CW Test 2100MHz RSSI Coverage at 100ft  
 (-7dB for foliage + 2.7dB correction factor)

- 95dBm <= x
- 105dBm <= x < -95dBm
- 120dBm <= x < -105dBm



Prepared by PierCon  
 02/21/2020



# Glenacom

700MHz Site Evaluation  
 Drive Test at 140ft  
 (via test location at 115ft)

Walton Drive  
 Mahopac, NY 10541

- Verizon Wireless Existing Facility
- Verizon Wireless Proposed Location

CW Test 700MHz RSSI Coverage at 140ft  
 (-7dB for foliage + 6.6dB correction factor)

- 95dBm <= x
- 105 to -95dBm
- 120dBm <= x < -105dBm



Prepared by PierCon  
 02/21/2020

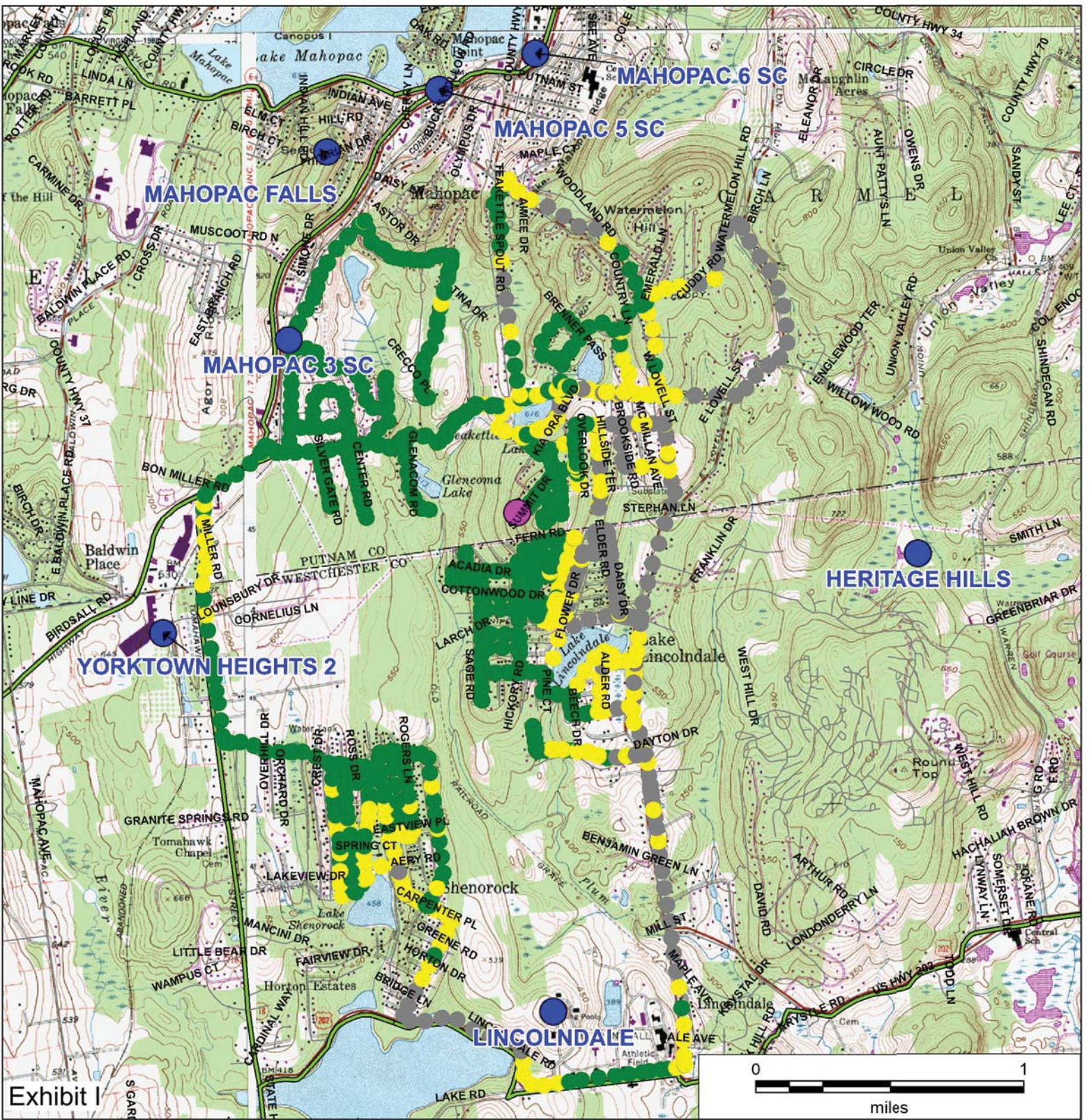


Exhibit I

# Glenacom

700MHz Site Evaluation  
 Drive Test at 120ft  
 (via test location at 95ft)

Walton Drive  
 Mahopac, NY 10541

- Verizon Wireless Existing Facility
  - Verizon Wireless Proposed Location
- CW Test 700MHz RSSI Coverage at 120ft  
 (-7dB for foliage + 6.6dB correction factor)
- 95dBm <= x
  - 105dBm <= x < -95dBm
  - 120dBm <= x < -105dBm



Prepared by PierCon  
 02/21/2020

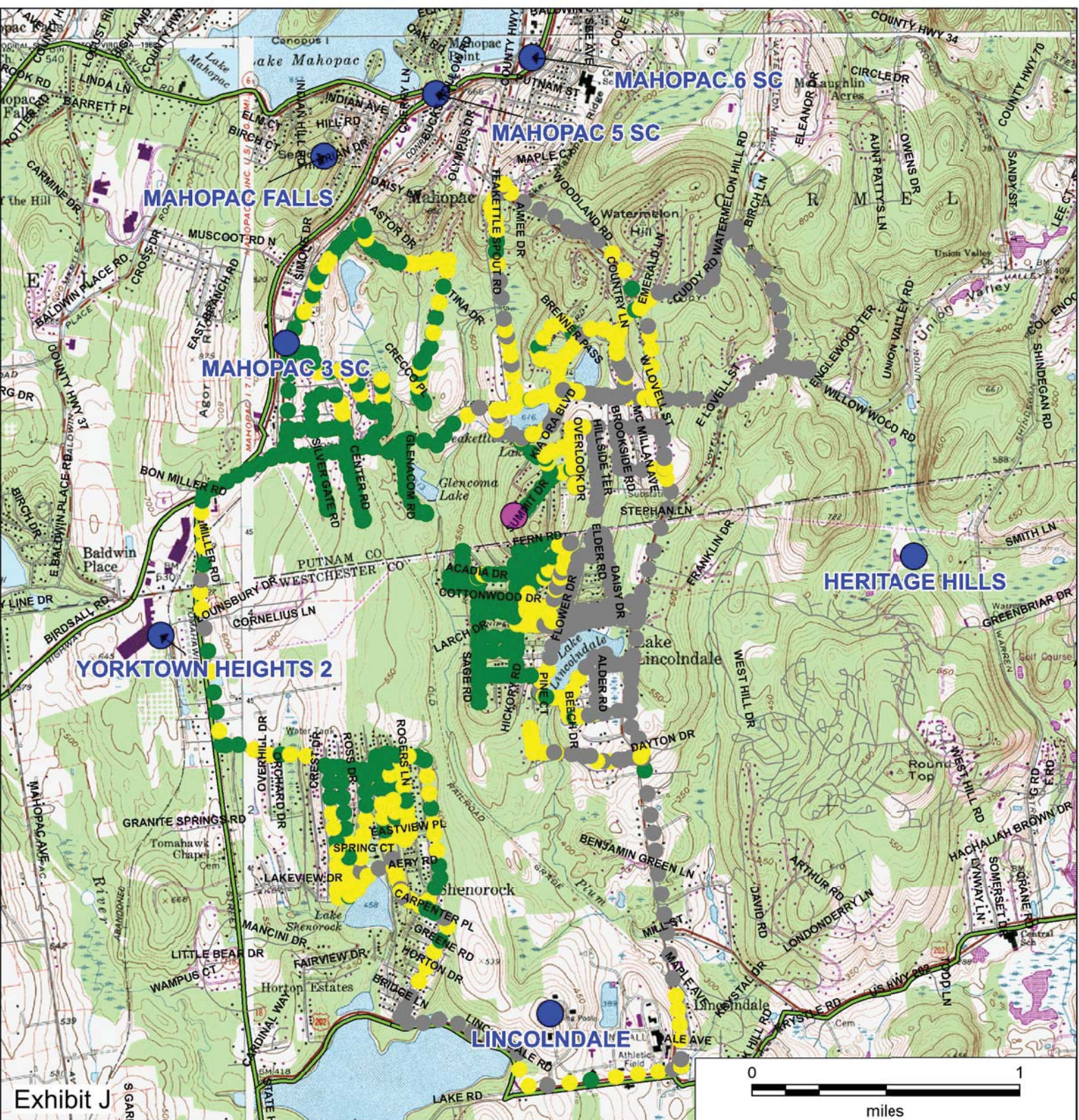


Exhibit J

## Glenacom

700MHz Site Evaluation  
 Drive Test at 100ft  
 (via test location at 75ft)

Walton Drive  
 Mahopac, NY 10541

- Verizon Wireless Existing Facility
- Verizon Wireless Proposed Location

CW Test 700MHz RSSI Coverage at 100ft  
 (-7dB for foliage + 6.6dB correction factor)

- 95dBm <= x
- 105dBm <= x < -95dBm
- 120dBm <= x < -105dBm



Prepared by PierCon  
 02/21/2020



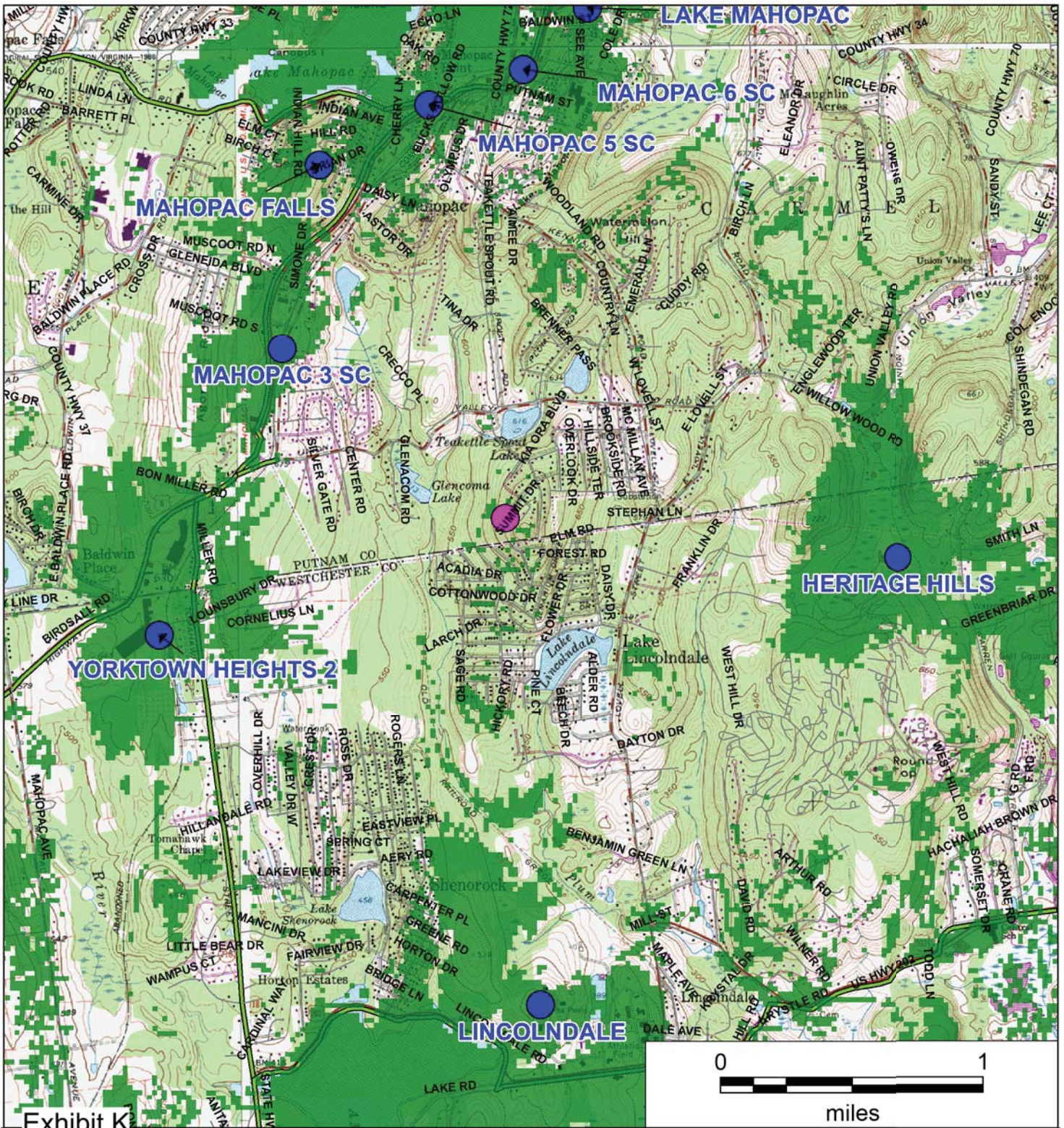


Exhibit K

## Glenacom

Existing Verizon Wireless  
Suburban 2100 MHz  
In-Building LTE Coverage

Walton Drive  
Mahopac, NY 10541

-  Verizon Wireless Existing Site
-  Verizon Wireless Proposed Site
-  Existing Reliable Coverage  
(greater than -95dBm)




Specialists in Wireless Systems

Prepared by PierCon  
11-14-2019

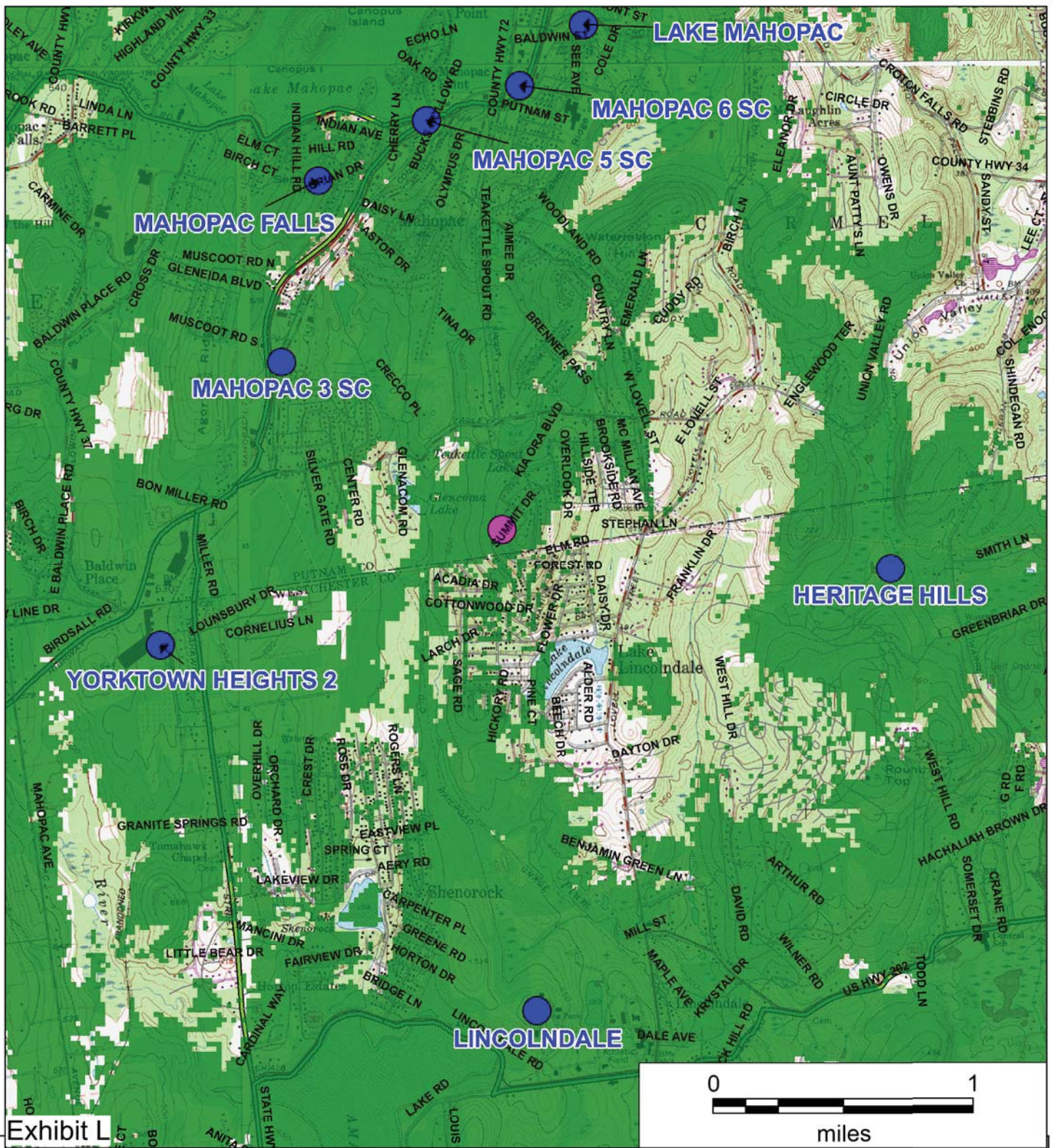


Exhibit L

### Glenacom

Existing Verizon Wireless  
Suburban 700 MHz  
In-Building LTE Coverage

Walton Drive  
Mahopac, NY 10541

- Verizon Wireless Existing Site
- Verizon Wireless Proposed Site
- Existing Reliable Coverage (greater than -95dBm)



Prepared by PierCon  
11-14-2019

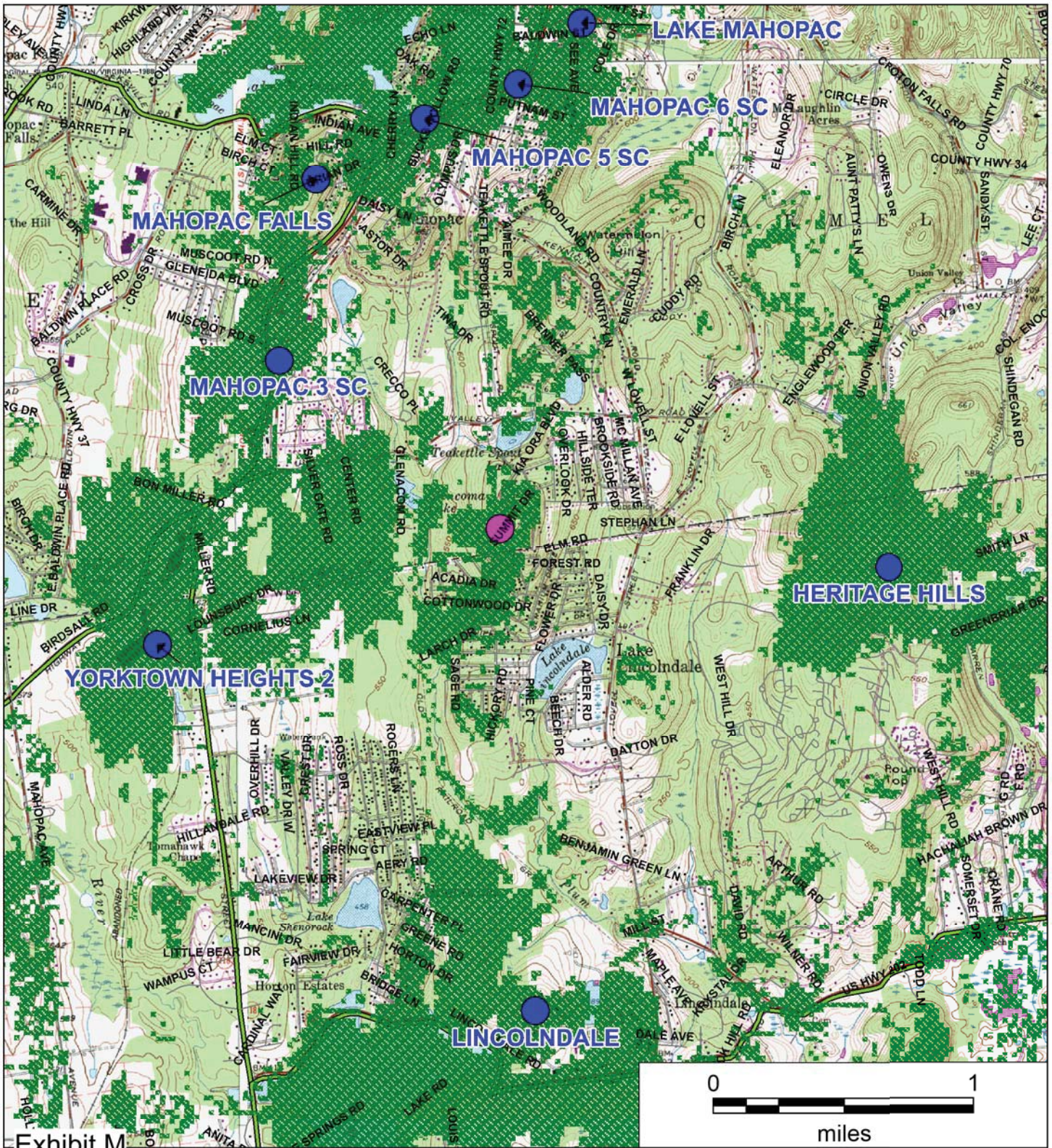



Exhibit M

**Glenacom**  
 Existing + Proposed  
 Verizon Wireless Suburban  
 2100 MHz In-Building  
 LTE Coverage @ 137'

Walton Drive  
 Mahopac, NY 10541

-  Verizon Wireless Existing Site
-  Verizon Wireless Proposed Site
-  Existing Reliable Coverage (greater than -95dBm)



Prepared by PierCon  
 11/14/2019

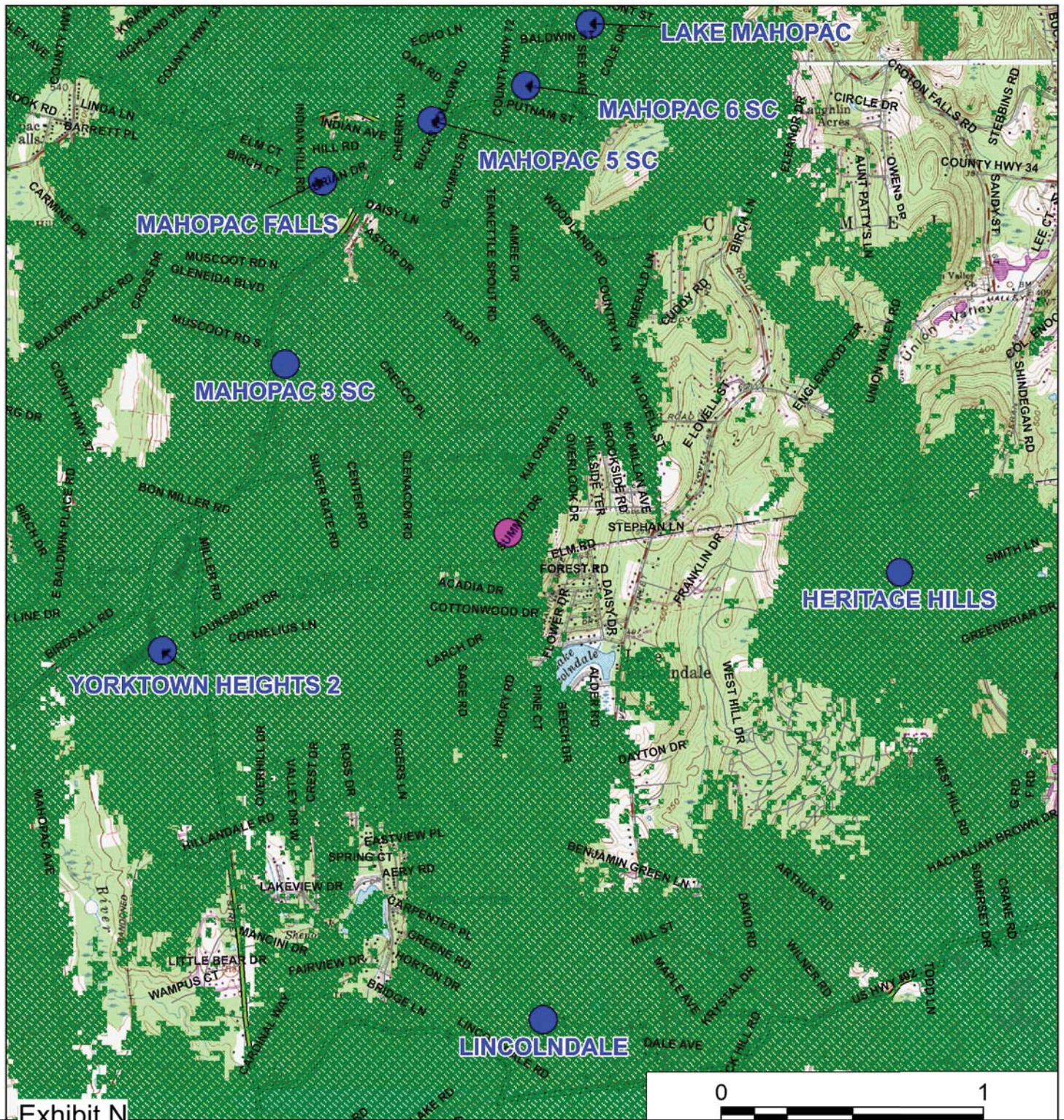




Exhibit N

## Glenacom

Existing + Proposed  
Verizon Wireless Suburban  
700 MHz In-Building  
LTE Coverage @ 137'

Walton Drive  
Mahopac, NY 10541

-  Verizon Wireless Existing Site
-  Verizon Wireless Proposed Site
-  Existing Reliable Coverage (greater than -95dBm)



Prepared by PierCon  
11/14/2019

Exhibit O - Yorktown Heights 2 – Alpha Sector Drop Call Rate (700MHz)

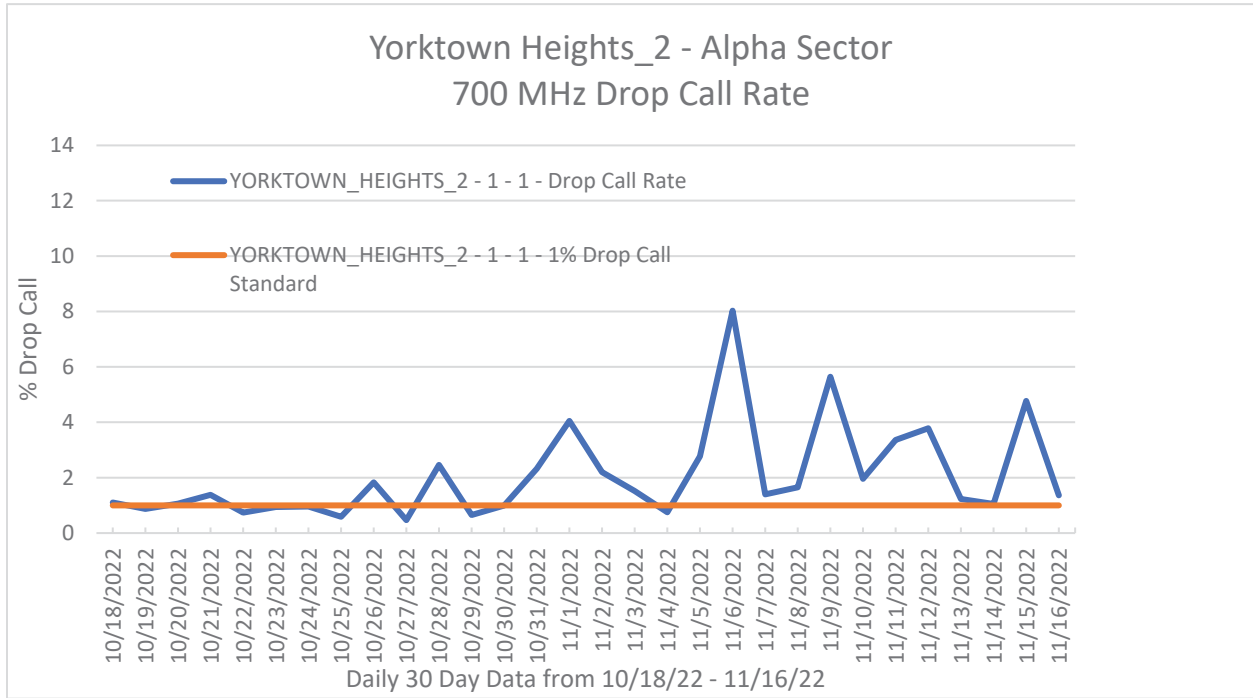


Chart above for Yorktown Heights 2 Alpha Sector at 700MHz demonstrate that users are experiencing significant drop calls on the 4G 700 MHz LTE network. Drop call rates recorded were consistently over 1% with peaks well over 8% failures. Over the 30 day period the 1% drop call rate was exceeded 70% of the time over the of the time period analyzed.

Exhibit P - Lincolndale – Gamma Sector Drop Call Rate (700MHz)

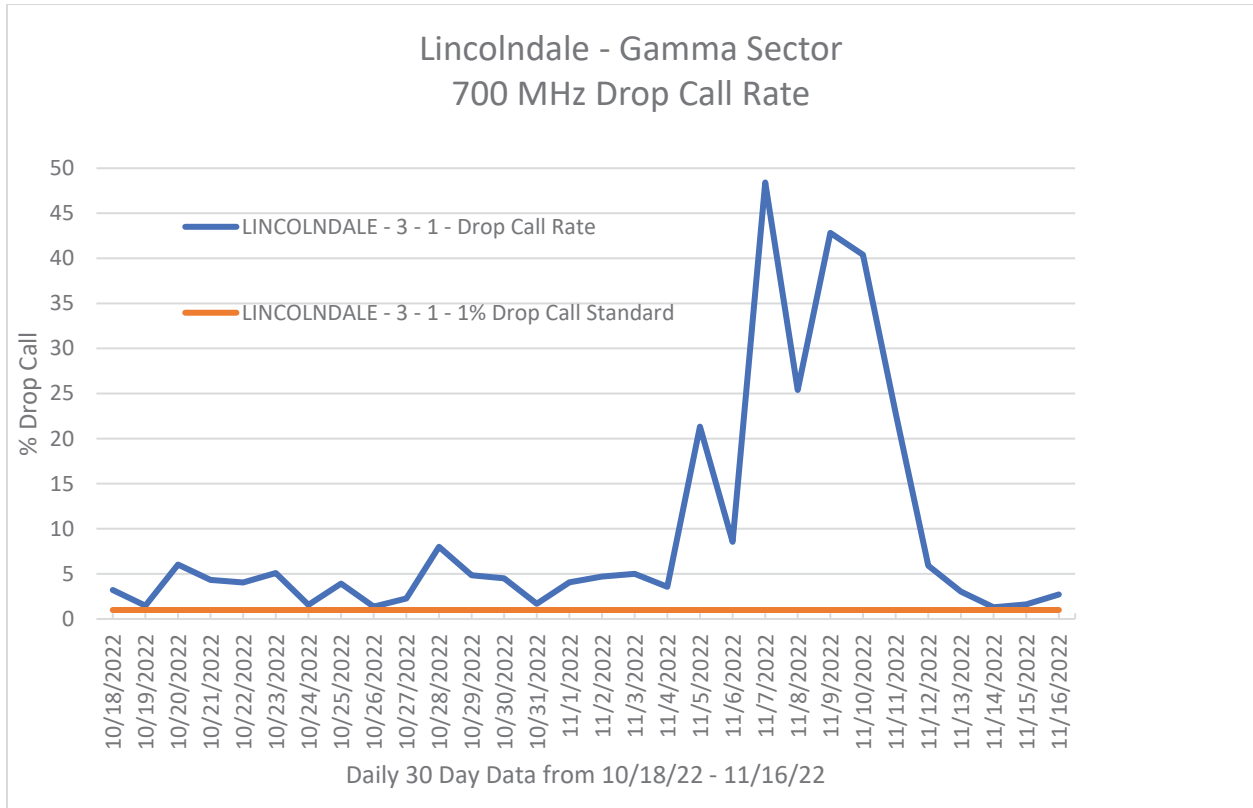


Chart above for Lincolndale Gamma Sector at 700MHz demonstrate that users are experiencing significant drop calls on the 4G 700 MHz LTE network. Drop call rates recorded were consistently over 1% with peaks well over 48% failures. Over the 30 day period the 1% drop call rate was exceeded 100% of the time over the time period analyzed.

Exhibit Q - Lincolndale – Gamma Sector Drop Call Rate (850MHz)

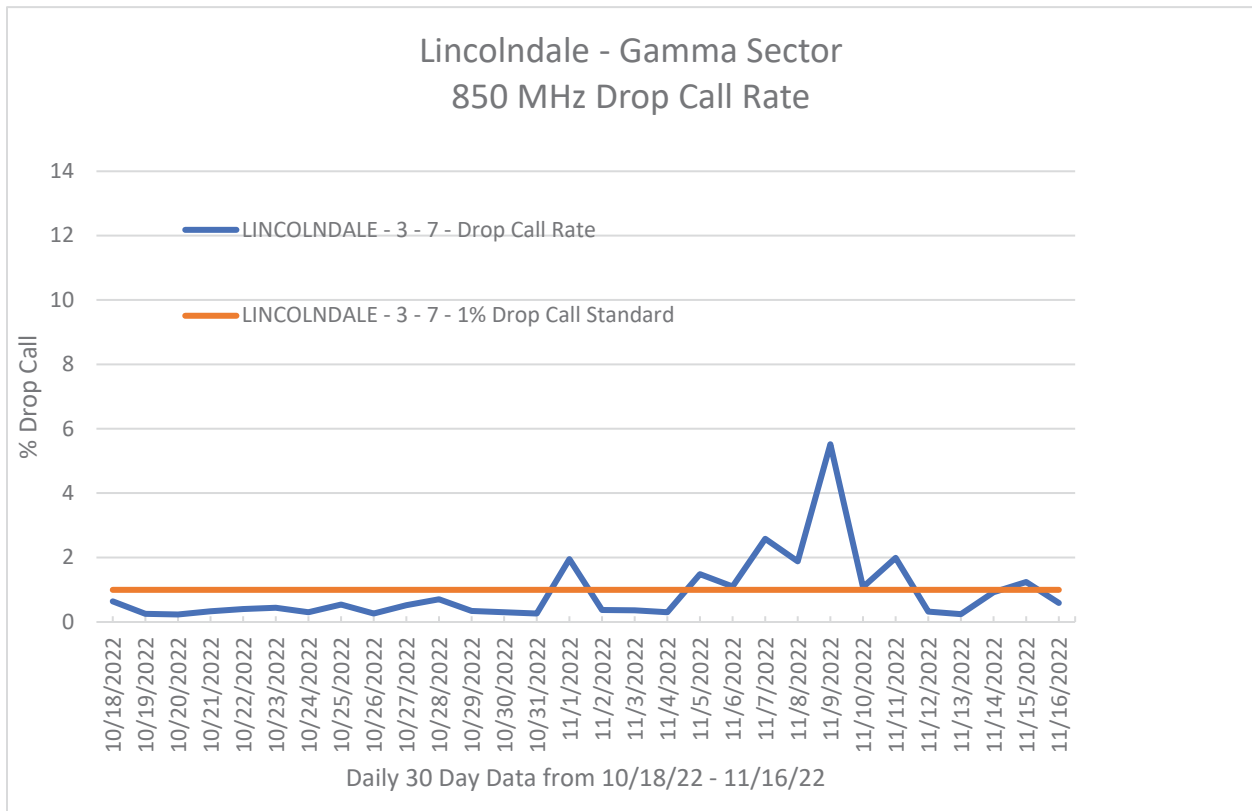


Chart above for Lincolndale Gamma Sector at 850MHz demonstrate that users are experiencing significant drop calls on the 4G 850 MHz LTE network. Drop call rates recorded were consistently over 1% with peaks well over 5% failures. Over the 30 day period the 1% drop call rate was exceeded 30% of the time over the time period analyzed. Since 700 MHz coverage is larger than 850 MHz coverage, some user’s wireless connection will transition to 700 MHz and then drop when no frequency band is providing suitable signal. This is the reason why the 700 MHz frequency band experiences more drop calls than the 850 MHz frequency band.

Exhibit R - Lincolndale – Gamma Sector Drop Call Rate (1900MHz)

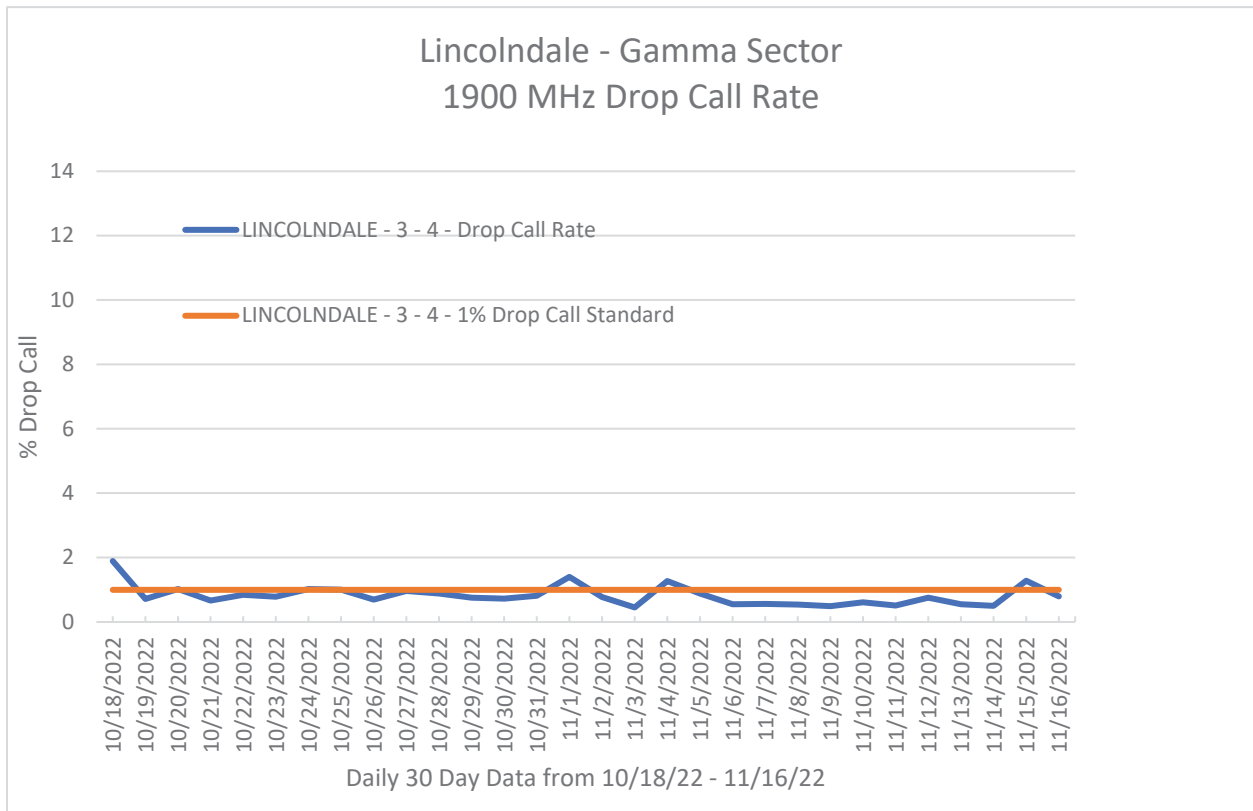


Chart above for Lincolndale Gamma Sector at 1900MHz demonstrate that users are experiencing significant drop calls on the 4G 1900 MHz LTE network. Over the 30 day period the 1% drop call rate was exceeded 20% of the time over the time period analyzed. Since low band coverage (700/850) is larger than 1900 MHz coverage, some user’s wireless connection will transition to low band frequencies and then drop when no frequency band is providing suitable signal, typically on the 700 MHz largest coverage layer band. This is the reason why the 700 MHz frequency band experiences more drop calls than the 1900 MHz frequency band.



Exhibit S - Lincolndale – Gamma Sector Drop Call Rate (2100MHz)

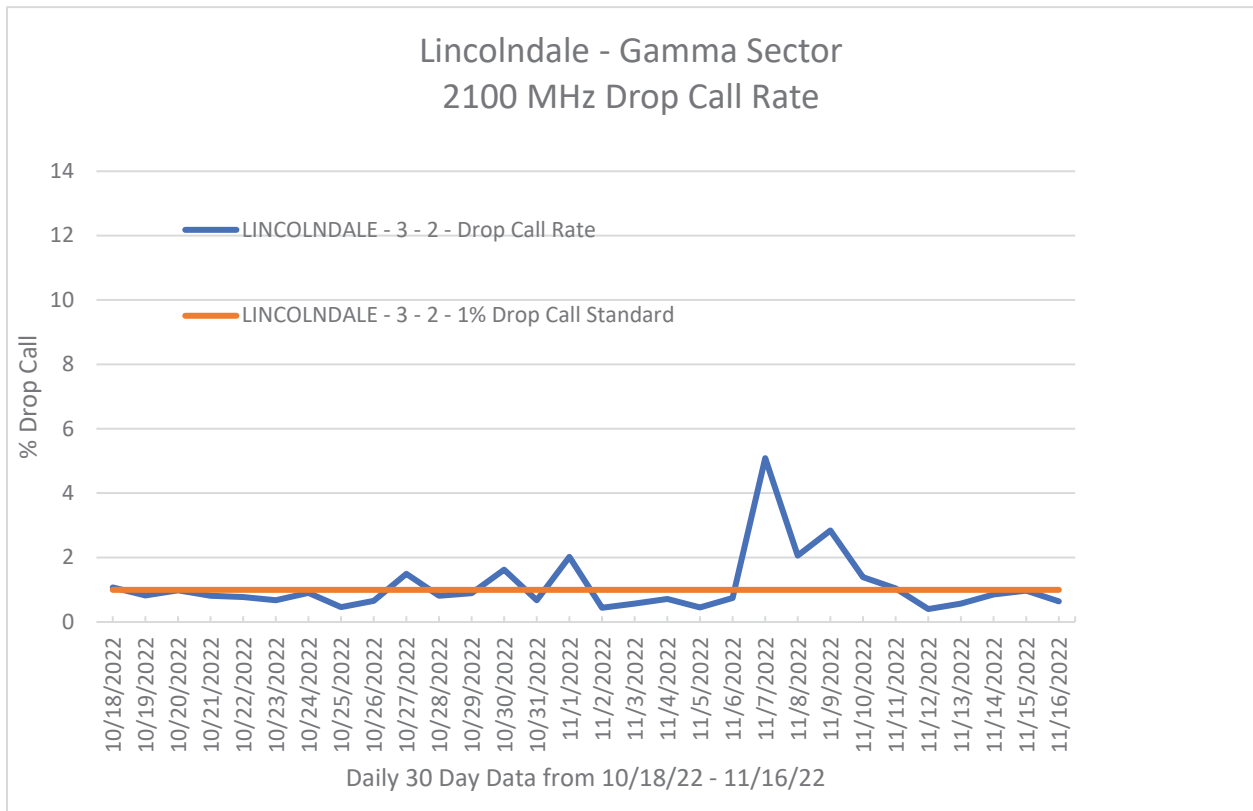


Chart above for Lincolndale Gamma Sector at 2100 MHz demonstrate that users are experiencing significant drop calls on the 4G 2100 MHz LTE network. Drop call rates recorded were consistently over 1% with peaks well over 5% failures. Over the 30 day period the 1% drop call rate was exceeded 30% of the time over the time period analyzed. Since low band coverage (700/850) is larger than 2100 MHz coverage, some user’s wireless connection will transition to low band frequencies and then drop when no frequency band is providing suitable signal, typically on the 700 MHz largest coverage layer band. This is the reason why the 700 MHz frequency band experiences more drop calls than the 2100 MHz frequency band.

Exhibit T - Lincolndale – Gamma Sector Access Failure Rate (700MHz)

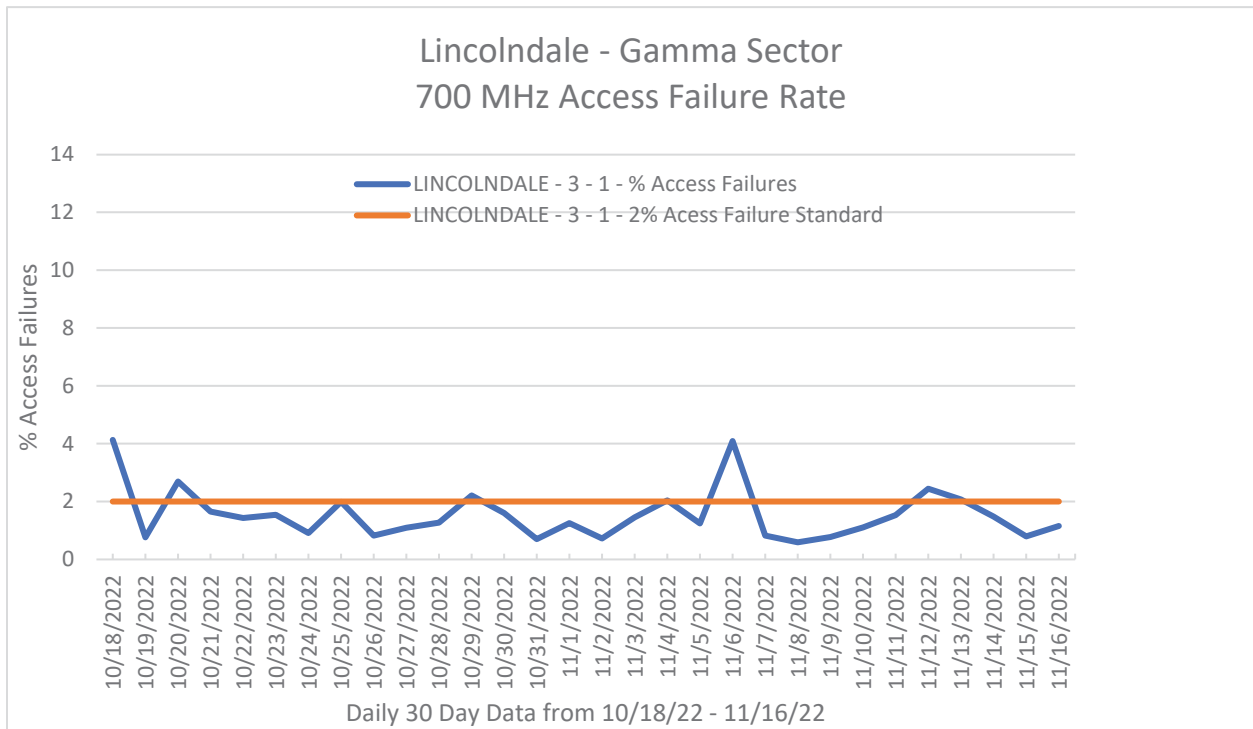


Chart above for Lincolndale Gamma Sector at 700MHz demonstrates that users are experiencing access failure rates on the 4G 700 MHz LTE network. Access Failure rates recorded were over 2% with peaks over 4% failures. Over the 30 day period the 2% drop call rate was exceeded 23% of the time over the time period analyzed. LTE utilizes adaptive modulation which allows users to connect with poor signal, albeit with reduced capacity and throughput. The access failures taken in conjunction with the drop call rate demonstrates that not only are users losing connections, but many cannot connect at all due to significant gap in the area.

Exhibit U – Heritage Hills – Beta Sector Drop Call Rate (700MHz)

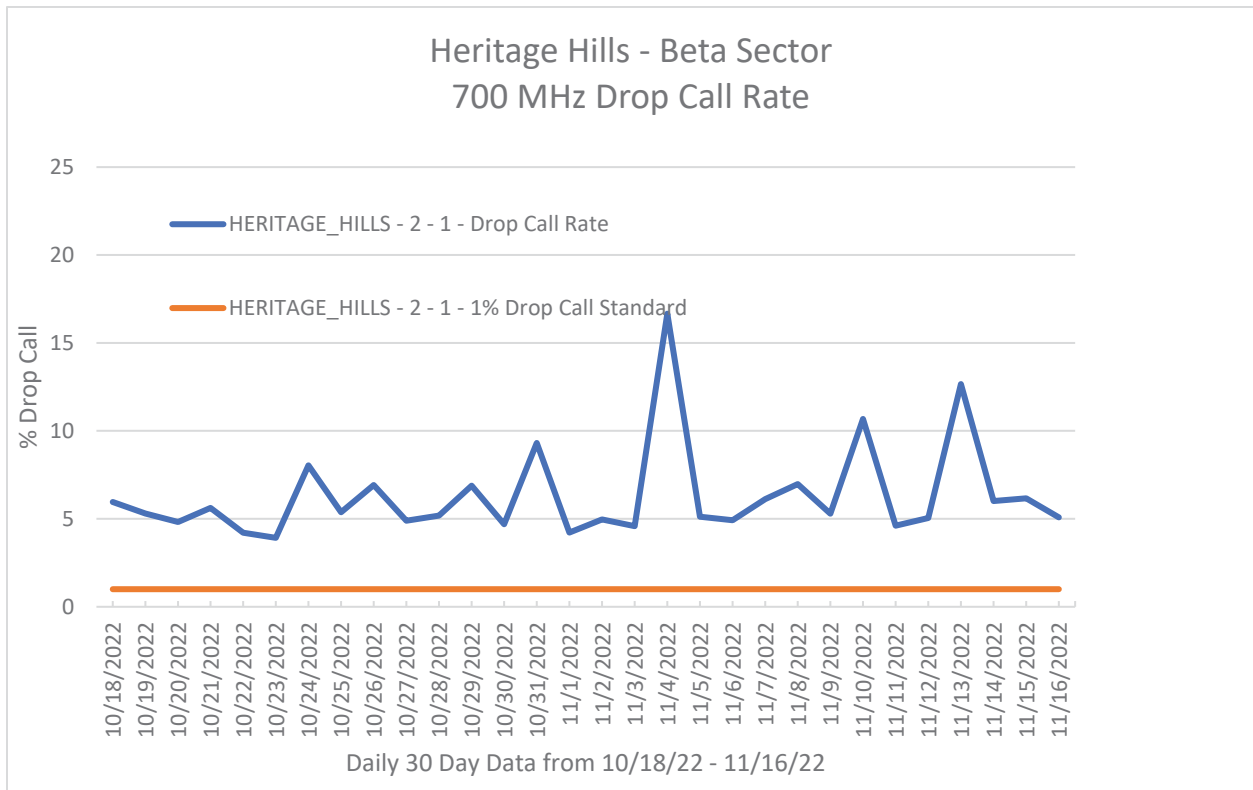


Chart above for Heritage Hills Beta Sector at 700MHz demonstrate that users are experiencing significant drop calls on the 4G 700 MHz LTE network. Drop call rates recorded were consistently over 1% with peaks well over 16% failures. Over the 30 day period the 1% drop call rate was exceeded 100% of the time over the time period analyzed.

Exhibit V – Heritage Hills – Beta Sector Drop Call Rate (850MHz)

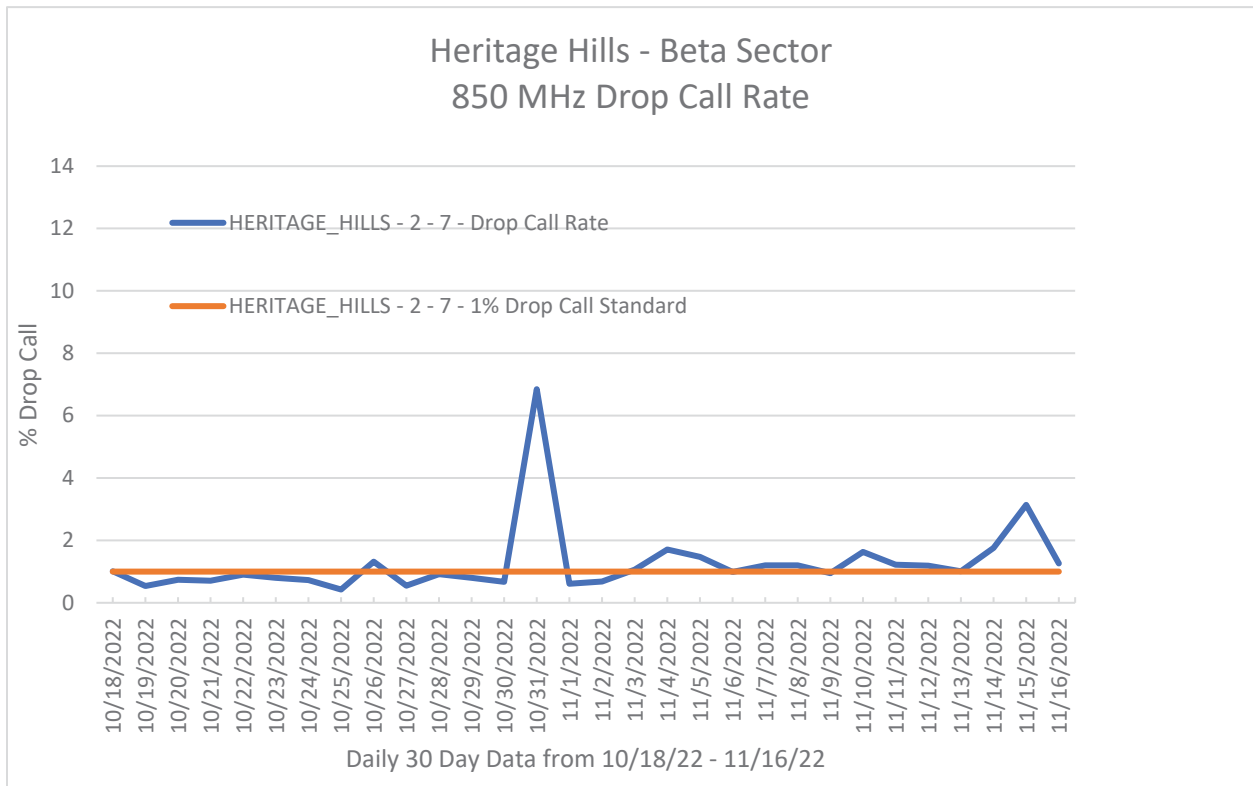


Chart above for Heritage Hills Beta Sector at 850MHz demonstrate that users are experiencing significant drop calls on the 4G 850 MHz LTE network. Drop call rates recorded were consistently over 1% with peaks well over 6% failures. Over the 30 day period the 1% drop call rate was exceeded 50% of the time over the time period analyzed. Since 700 MHz coverage is larger than 850 MHz coverage, some user's wireless connection will transition to 700 MHz and then drop when no frequency band is providing suitable signal. This is the reason why the 700 MHz frequency band experiences more drop calls than the 850 MHz frequency band.

Exhibit W – Heritage Hills – Beta Sector Drop Call Rate (1900MHz)

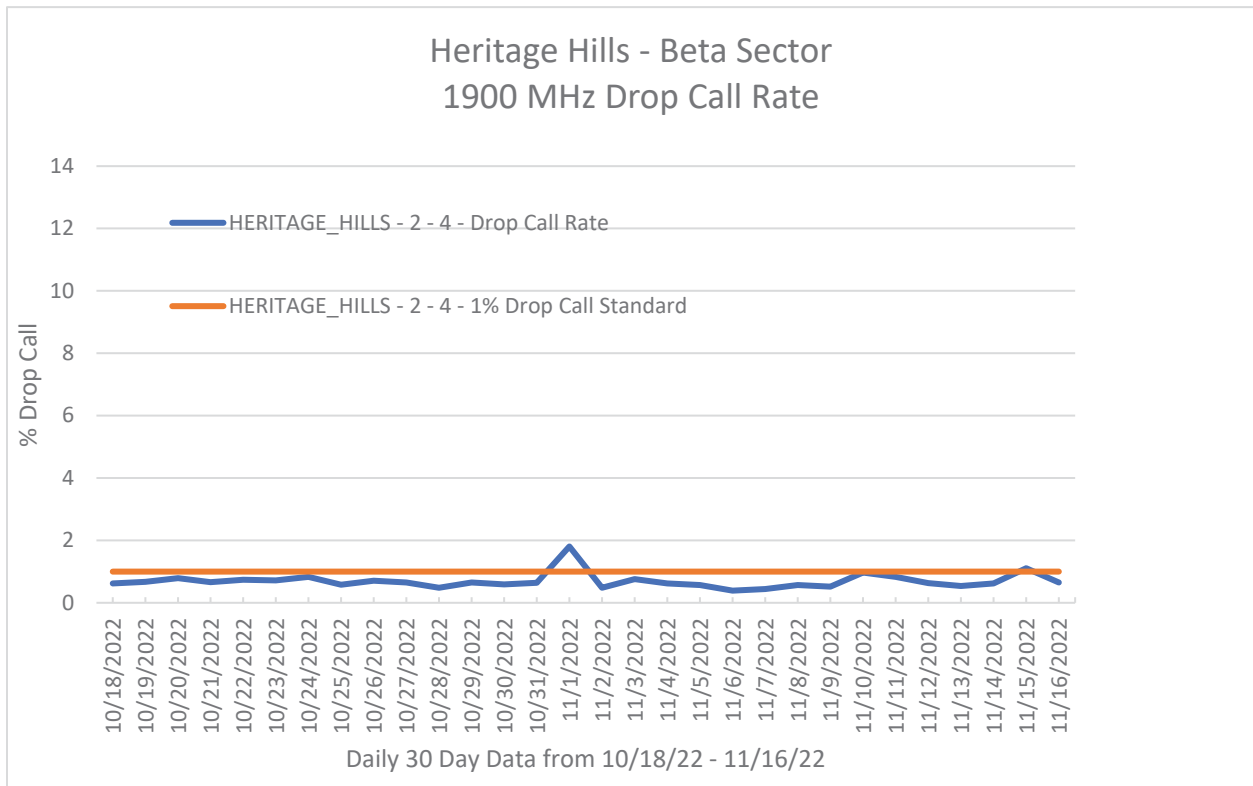


Chart above for Heritage Hills Beta Sector at 1900MHz demonstrate that users are experiencing some drop calls on the 4G 1900 MHz LTE network. Over the 30 day period the 1% drop call rate was exceeded 7% of the time over the time period analyzed. Since low band coverage (700/850) is larger than 1900 MHz coverage, some user’s wireless connection will transition to low band frequencies and then drop when no frequency band is providing suitable signal, typically on the 700 MHz largest coverage layer band. This is the reason why the 700 MHz frequency band experiences more drop calls than the 1900 MHz frequency band.

Exhibit X – Heritage Hills – Beta Sector Drop Call Rate (2100MHz)

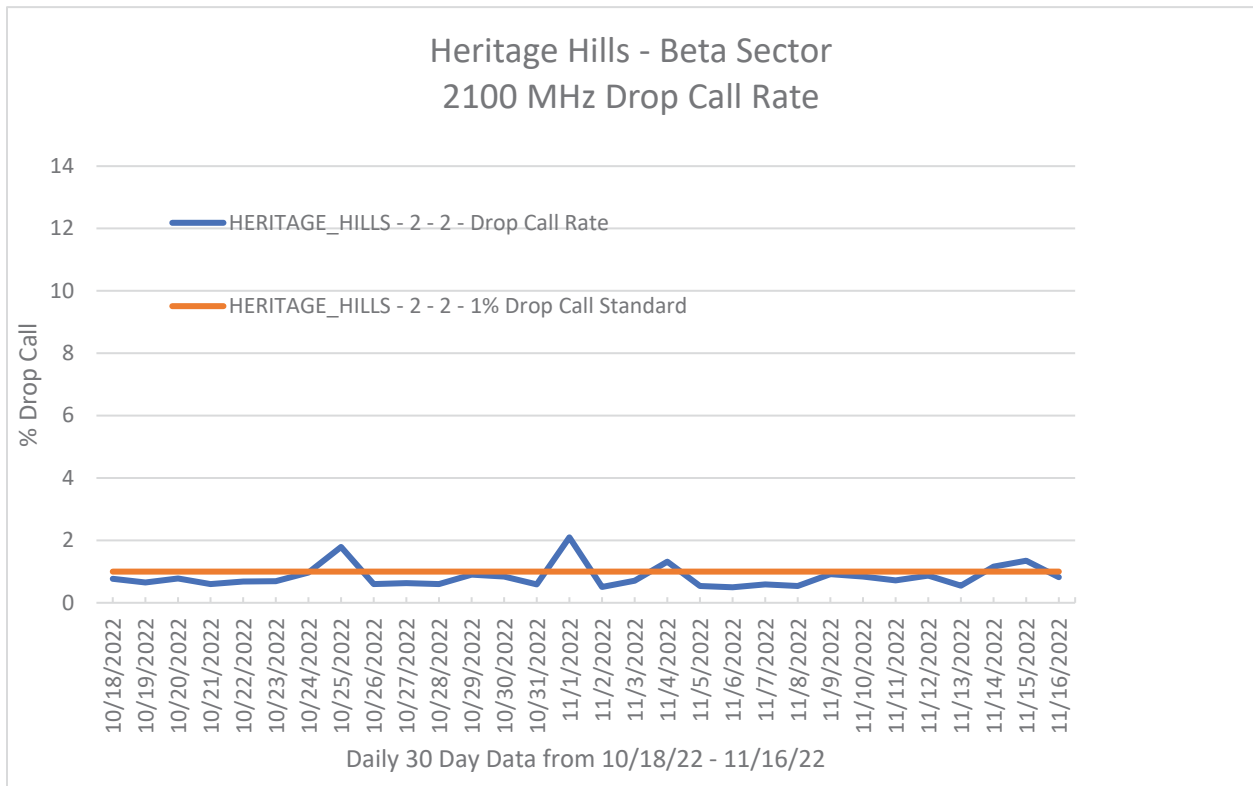


Chart above for Heritage Hills Beta Sector at 2100MHz demonstrate that users are experiencing some drop calls on the 4G 2100 MHz LTE network. Over the 30 day period the 1% drop call rate was exceeded 17% of the time over the time period analyzed. Since low band coverage (700/850) is larger than 2100 MHz coverage, some user's wireless connection will transition to low band frequencies and then drop when no frequency band is providing suitable signal, typically on the 700 MHz largest coverage layer band. This is the reason why the 700 MHz frequency band experiences more drop calls than the 2100 MHz frequency band.

Exhibit Y – Heritage Hills – Beta Sector Access Failure Rate (700MHz)

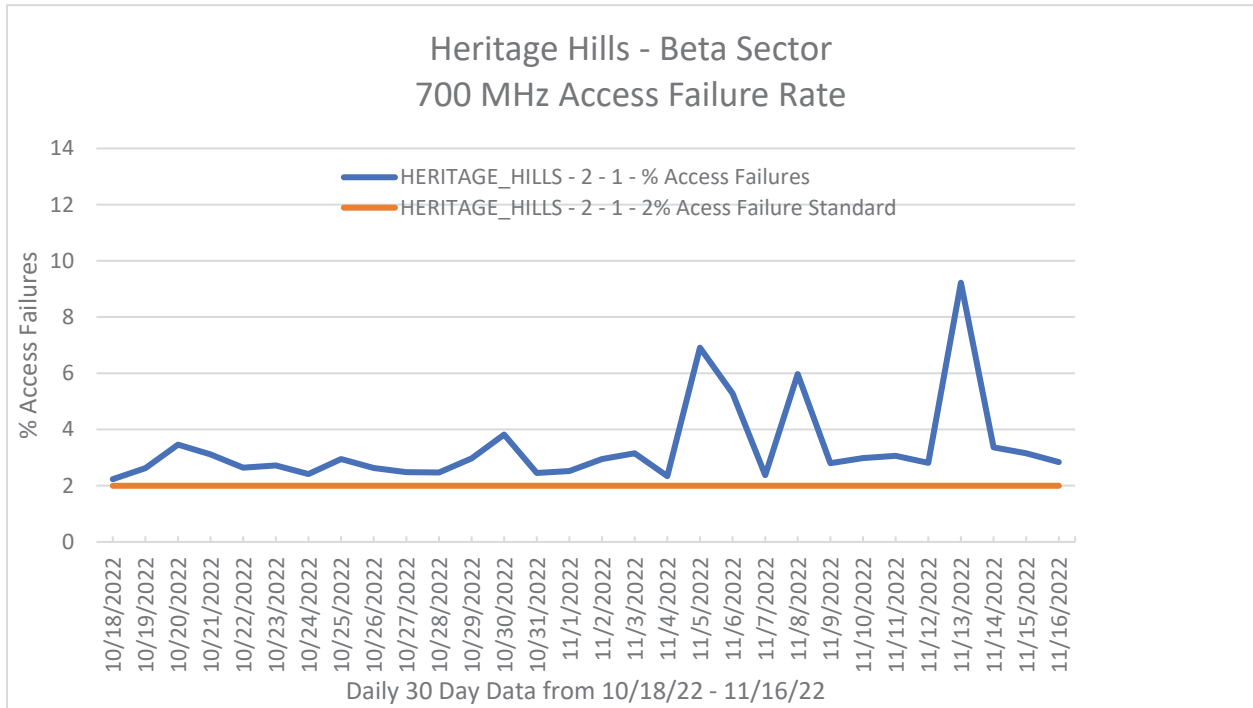


Chart above for Heritage Hills Beta Sector at 700MHz demonstrates that users are experiencing access failure rates on the 4G 700 MHz LTE network. Access Failure rates recorded were over 2% with peaks over 9% failures. Over the 30 day period the 2% drop call rate was exceeded 100% of the time over the time period analyzed. LTE utilizes adaptive modulation which allows users to connect with poor signal, albeit with reduced capacity and throughput. The access failures taken in conjunction with the drop call rate demonstrates that not only are users losing connections, but many cannot connect at all due to significant gap in the area.

Exhibit Z – Mahopac Falls – Alpha Sector Drop Call Rate (700MHz)

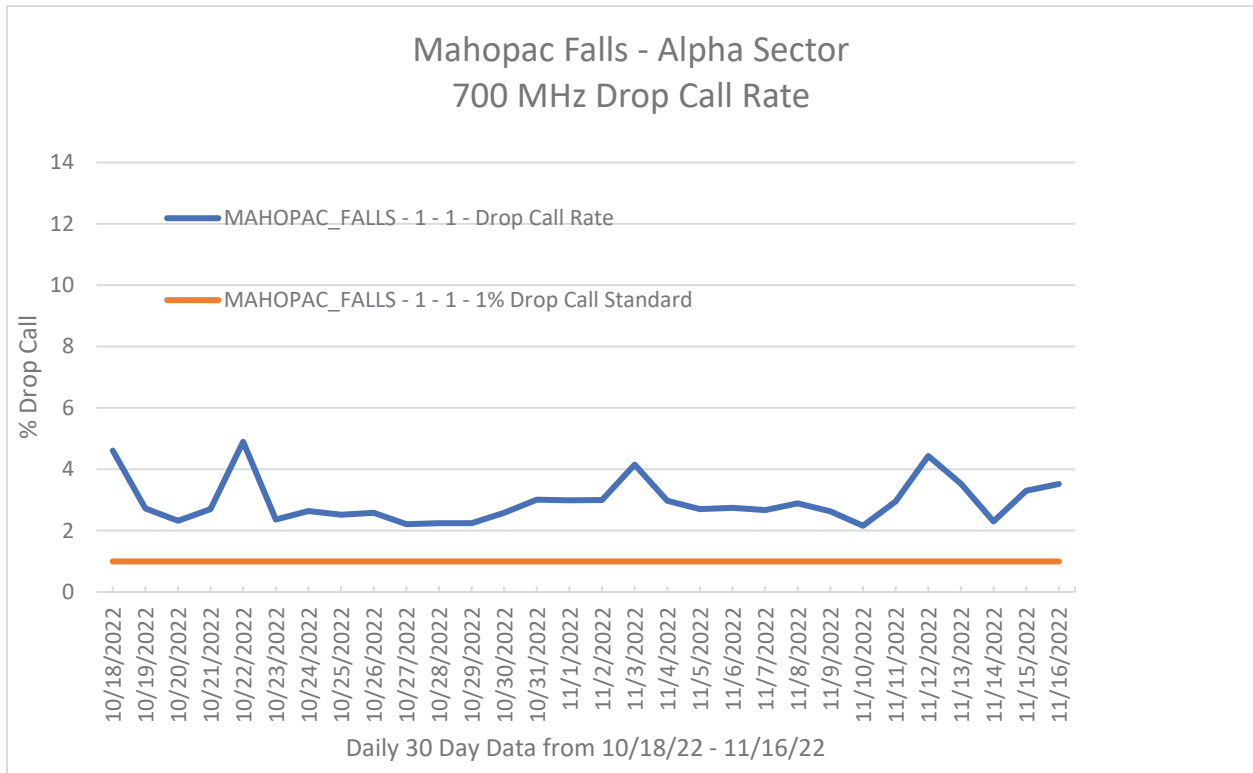


Chart above for Mahopac Falls Beta Sector at 700MHz demonstrate that users are experiencing significant drop calls on the 4G 700 MHz LTE network. Drop call rates recorded were consistently over 1% with peaks well over 8% failures. Over the 30 day period the 1% drop call rate was exceeded 100% of the time over of the time period analyzed.



Exhibit AA - Mahopac Falls Alpha Sector Access Failure Rate (700MHz)

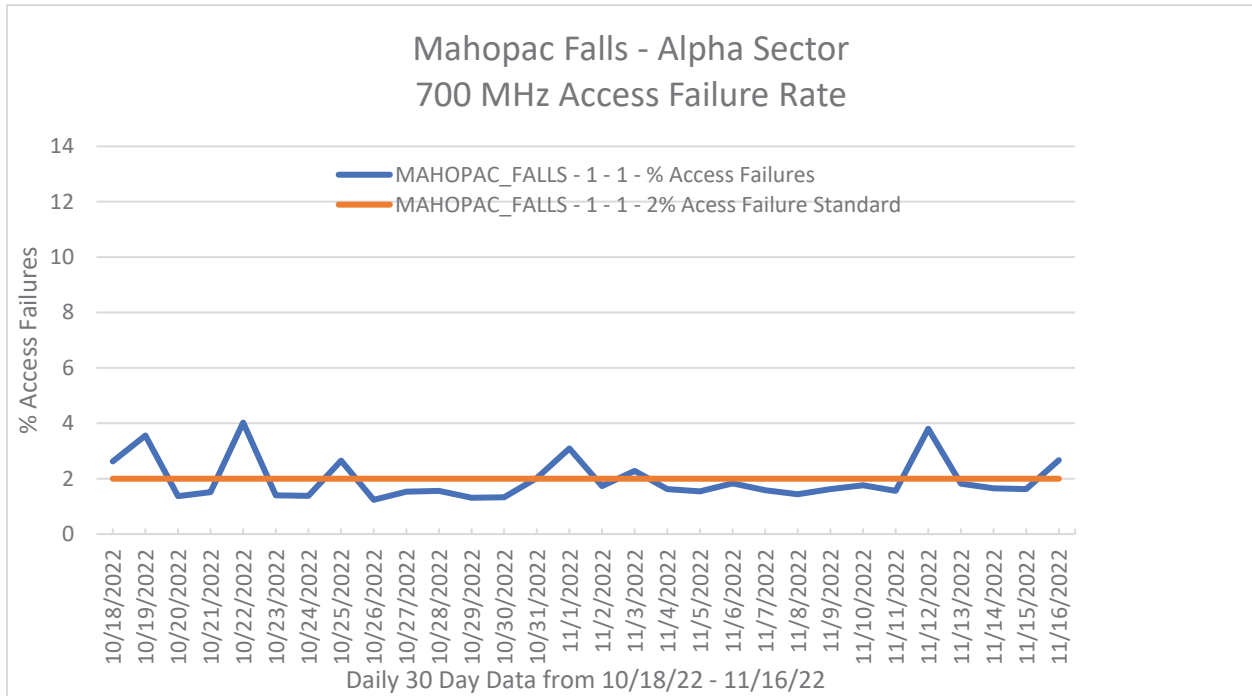


Chart above for Mahopac Falls Alpha Sector at 700MHz demonstrates that users are experiencing access failure rates on the 4G 700 MHz LTE network. Access Failure rates recorded were over 2% with peaks over 9% failures. Over the 30 day period the 2% drop call rate was exceeded 30% of the time over the time period analyzed. LTE utilizes adaptive modulation which allows users to connect with poor signal, albeit with reduced capacity and throughput. The access failures taken in conjunction with the drop call rate demonstrates that not only are users losing connections, but many cannot connect at all due to significant gap in the area.

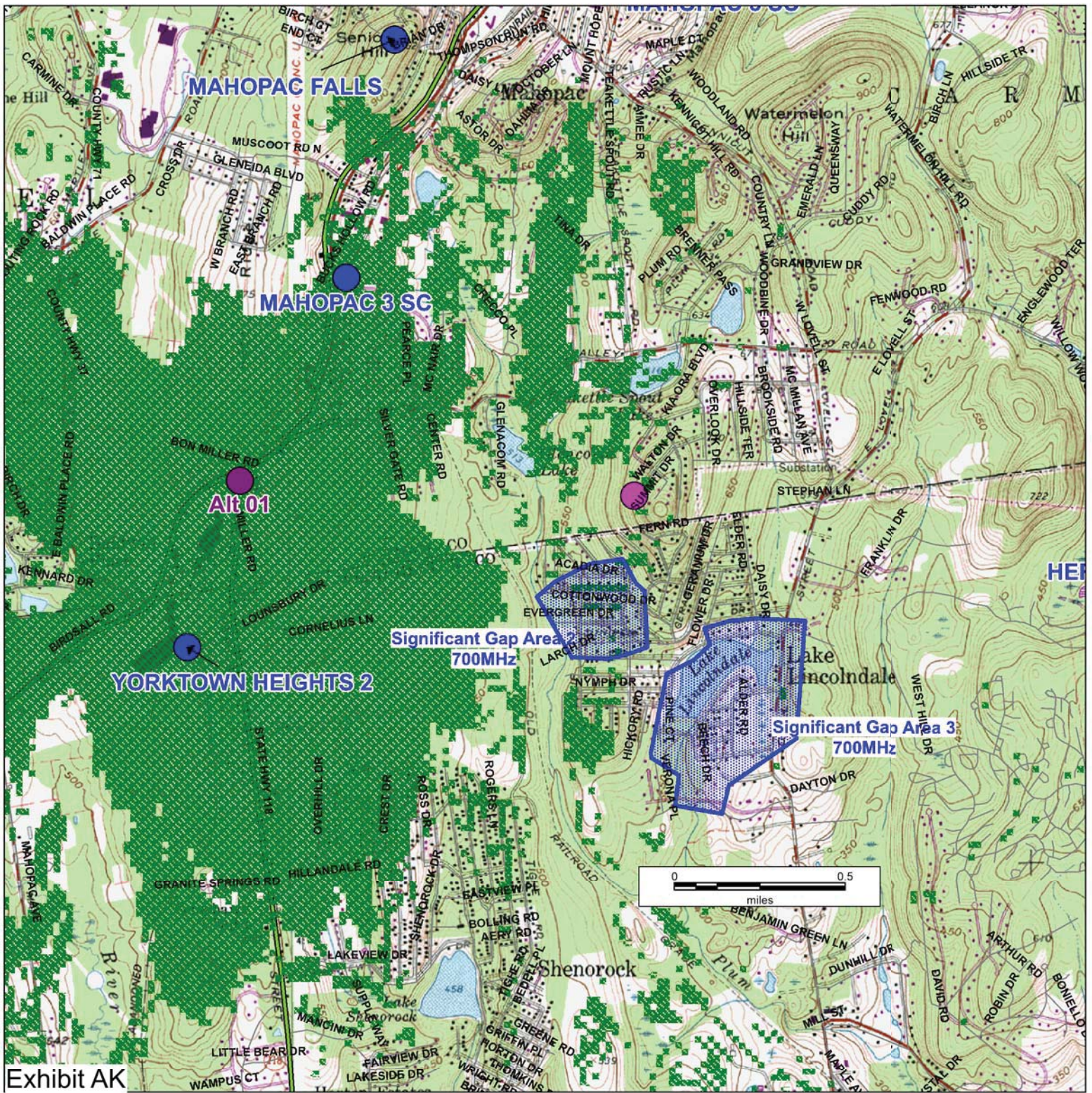







Exhibit AK

# Glenacom

Alternative Candidate #1  
Suburban 700 MHz  
In-Building LTE Coverage

Walton Drive  
Mahopac, NY 10541

-  Verizon Wireless Existing Site
-  Verizon Wireless Proposed Site
-  Verizon Wireless Alternative Site
-  Verizon Wireless 700MHz Gap Area (Coverage Objective)
-  Alt Site Reliable Coverage (greater than -95dBm)



Prepared by PierCon  
01-21-2020

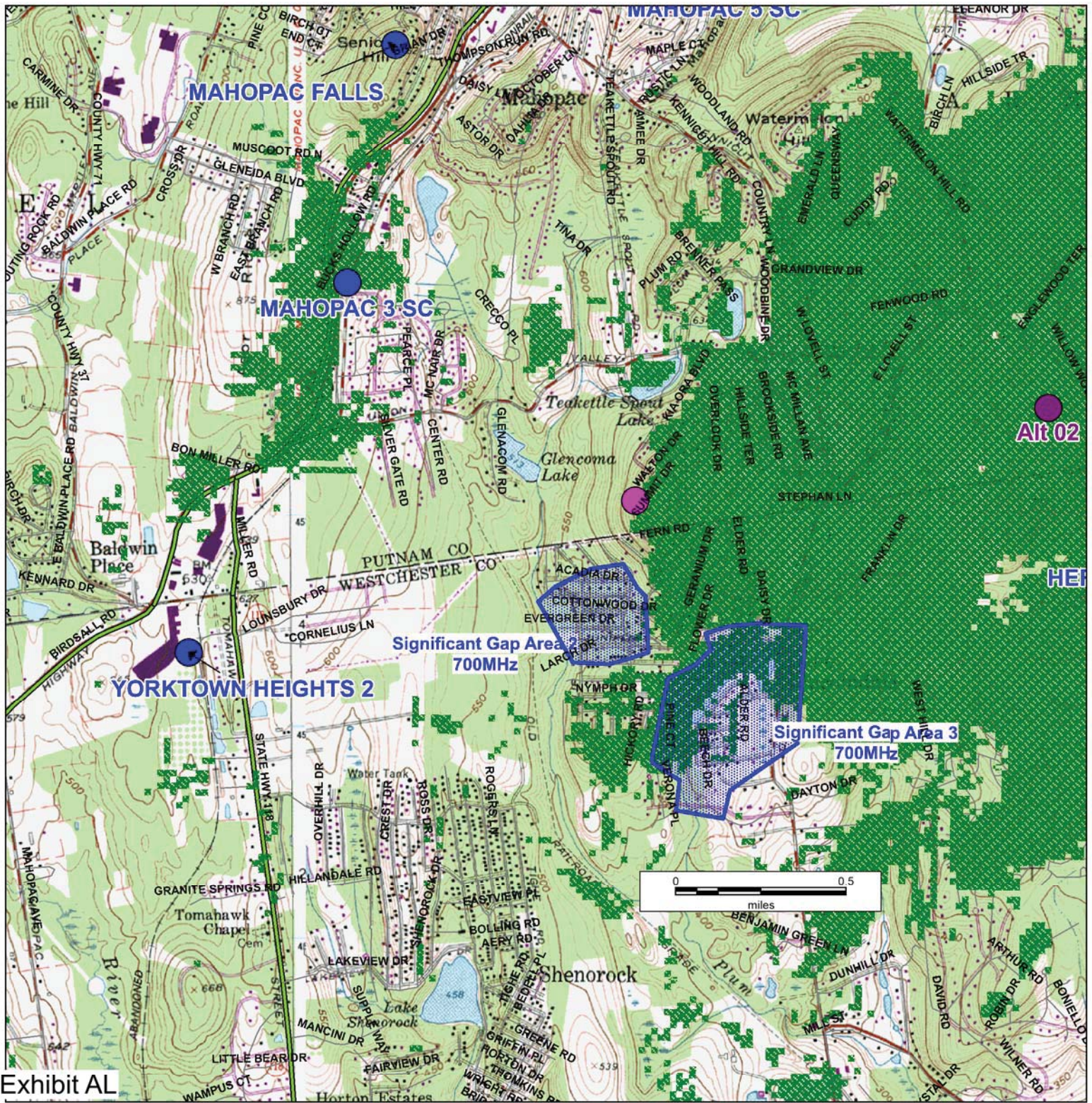


Exhibit AL

# Glenacom

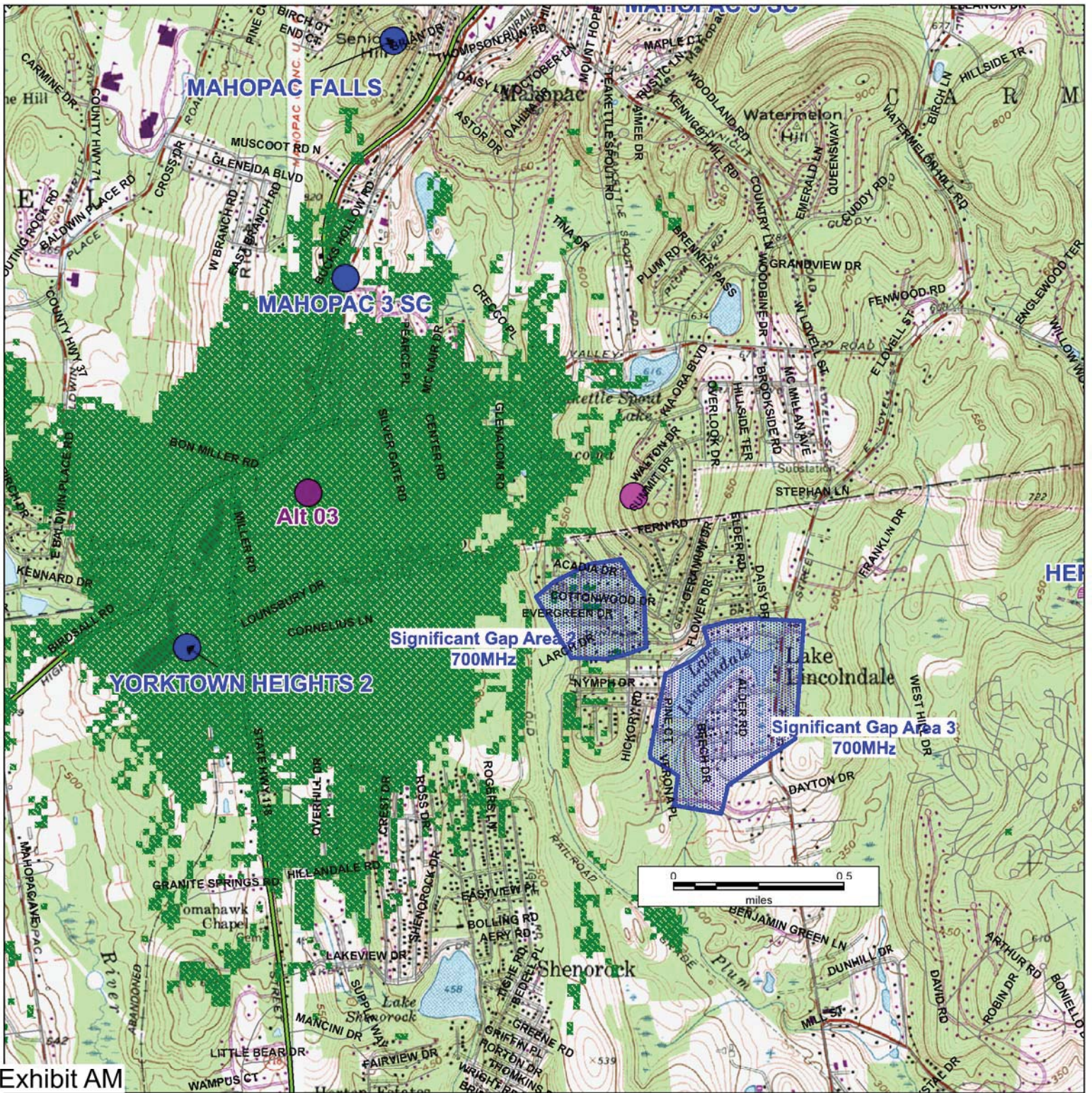
Alternative Candidate #2  
Suburban 700 MHz  
In-Building LTE Coverage

Walton Drive  
Mahopac, NY 10541

- Verizon Wireless Existing Site
- Verizon Wireless Proposed Site
- Verizon Wireless Alternative Site
- Verizon Wireless 700MHz Gap Area (Coverage Objective)
- Alt Site Reliable Coverage (greater than -95dBm)








Prepared by PierCon  
01-21-2020



# Glenacom

Alternative Candidate #3  
Suburban 700 MHz  
In-Building LTE Coverage

Walton Drive  
Mahopac, NY 10541

-  Verizon Wireless Existing Site
-  Verizon Wireless Proposed Site
-  Verizon Wireless Alternative Site
-  Verizon Wireless 700MHz Gap Area (Coverage Objective)
-  Alt Site Reliable Coverage (greater than -95dBm)



Prepared by PierCon  
01-21-2020

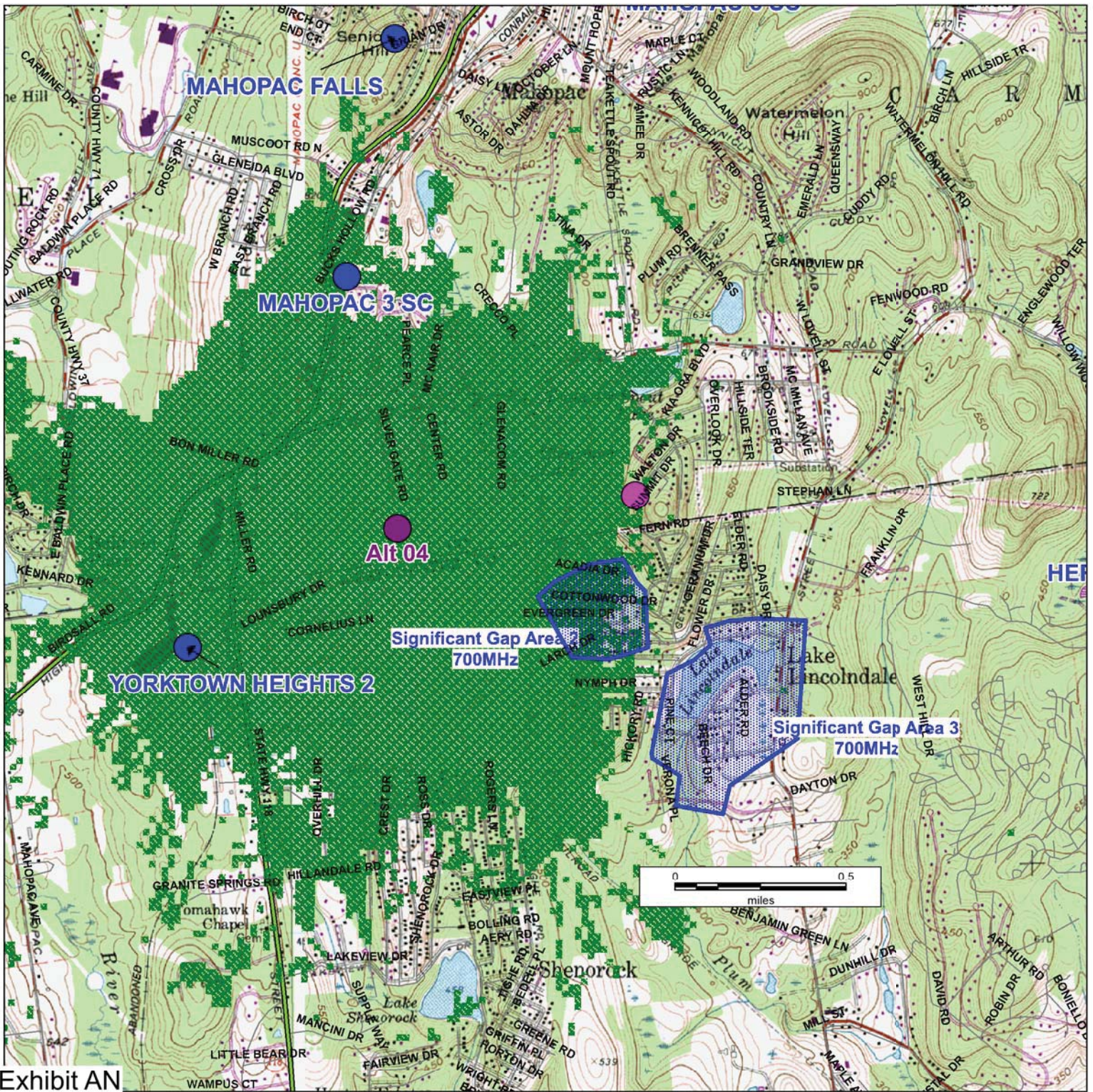


Exhibit AN

## Glenacom

Alternative Candidate #4  
Suburban 700 MHz  
In-Building LTE Coverage

Walton Drive  
Mahopac, NY 10541

- Verizon Wireless Existing Site
- Verizon Wireless Proposed Site
- Verizon Wireless Alternative Site
- Verizon Wireless 700MHz Gap Area (Coverage Objective)
- Alt Site Reliable Coverage (greater than -95dBm)



Prepared by PierCon  
01-21-2020

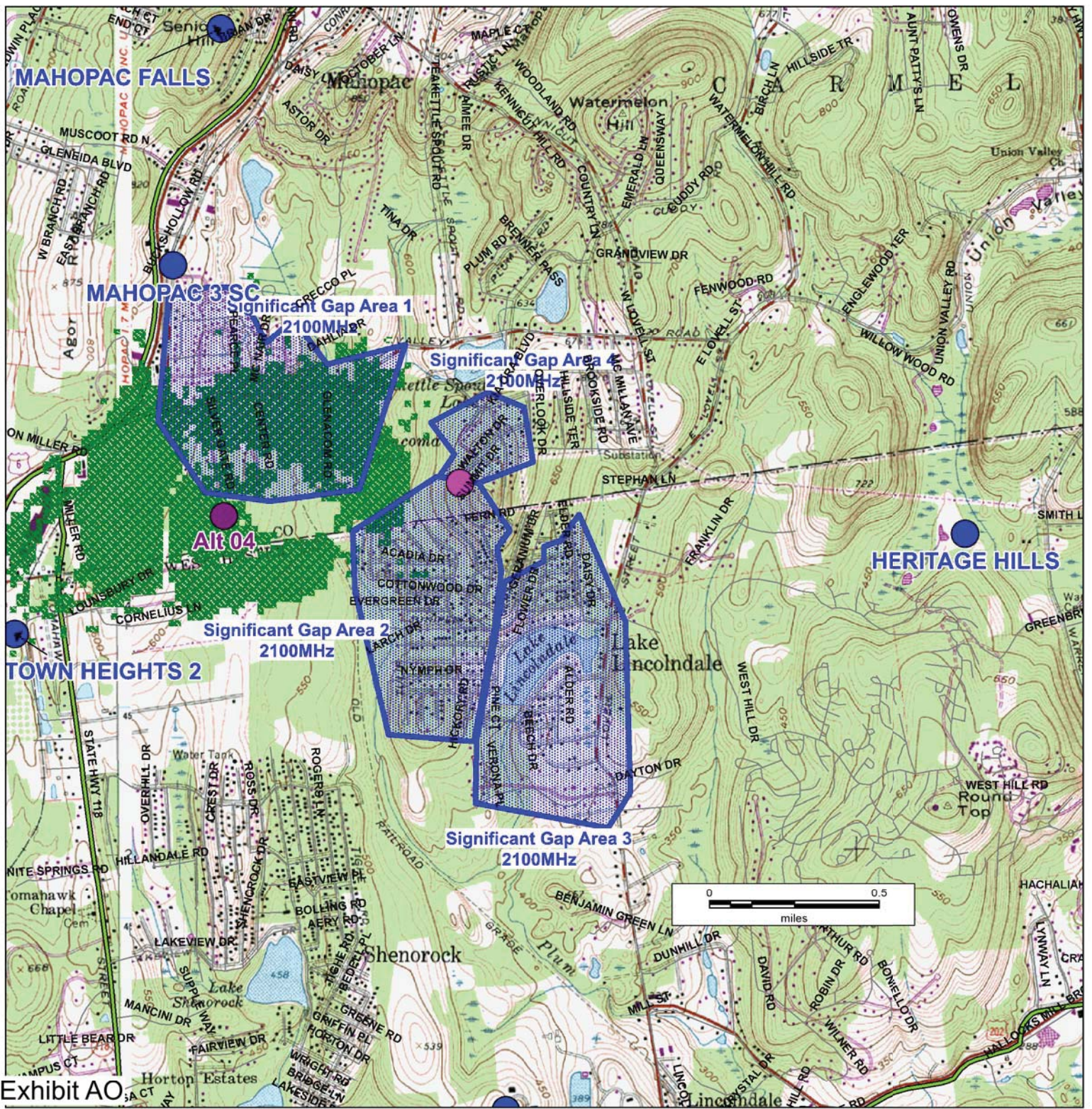


Exhibit AO

## Glenacom

Alternative Candidate #4  
Suburban 2100 MHz  
In-Building LTE Coverage

Walton Drive  
Mahopac, NY 10541

- Verizon Wireless Existing Site
- Verizon Wireless Proposed Site
- Verizon Wireless Alternative Site
- Verizon Wireless 2100MHz Gap Area (Coverage Objective)
- Alt Site Coverage (greater than -95dBm)

**verizon** ✓

**PierCon Solutions** LLC  
Specialists in Wireless Systems

Prepared by PierCon  
01-21-2020

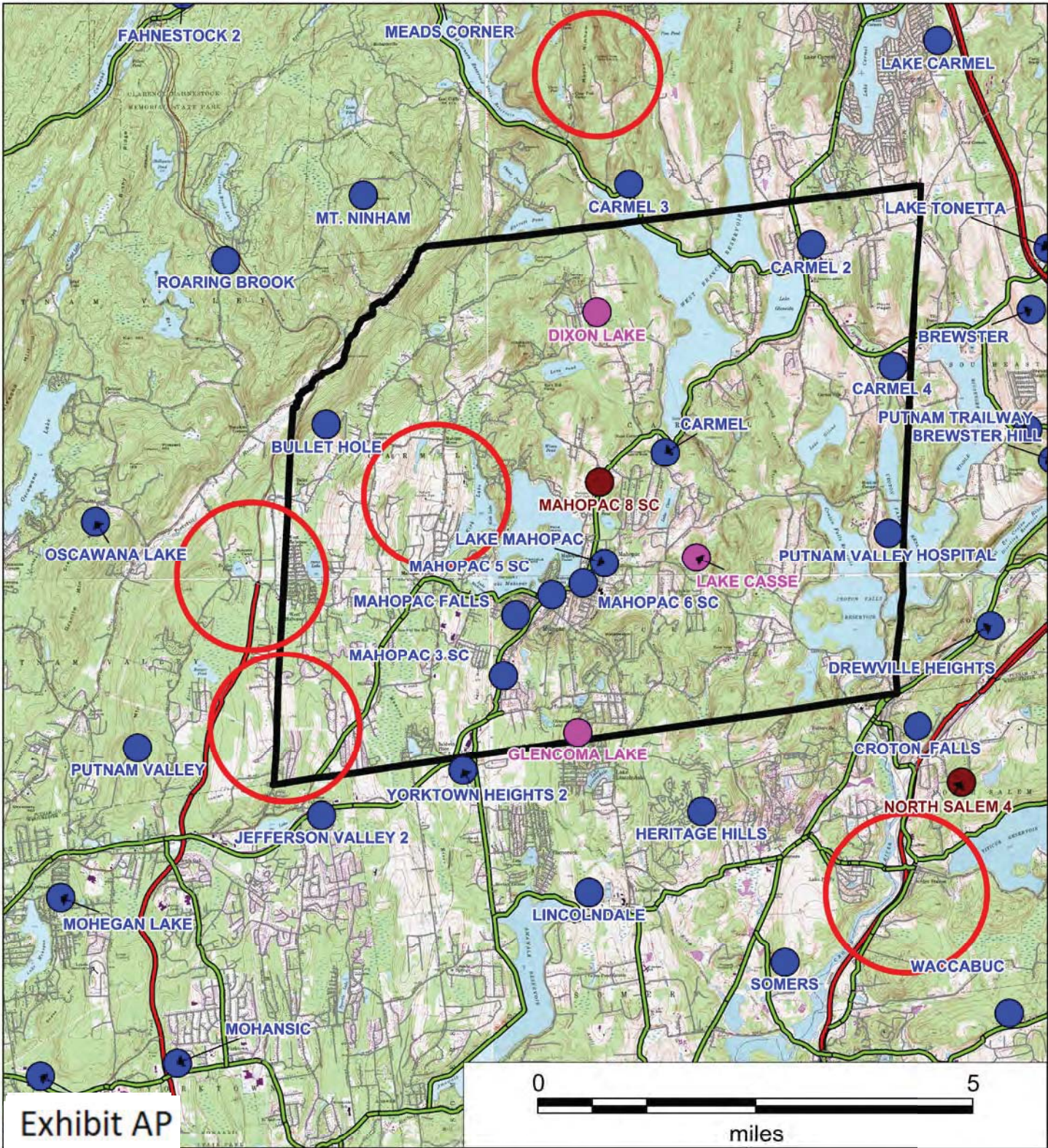


Exhibit AP

**Town Of Carmel**

Existing, Proposed/  
Approved, and Future  
Verizon Wireless Sites

- Verizon Wireless Existing Site
- Verizon Wireless Proposed Site (Homeland Towers)
- Verizon Wireless Approved Site
- Search Area for Future Site
- Town of Carmel Boundary



Prepared by A. PierCon  
01/14/2020

## Exhibit AQ

| <b>Site Name</b>       | <b>Address</b>                           | <b>Height (feet) +/-</b> |
|------------------------|------------------------------------------|--------------------------|
| JEFFERSON VALLEY       | 3830 Gomer Street, Yorktown Heights      | 52                       |
| CARMEL 2               | 94 Gleneida Ave, Carmel                  | 123                      |
| AMAWALK 3              | 2580 Route 35, Somers                    | 119                      |
| CARMEL 3               | 21 Smokey Hollow Court, Carmel           | 150                      |
| LAKE CARMEL            | 723 Fair St, Carmel                      | 102                      |
| FAHNESTOCK 2           | Route 301, Cold Spring                   | 101                      |
| WACCABUC               | 117 Waccubuc Road, Goldens Bridge        | 141                      |
| ROARING BROOK          | 220 Wiccopee Road, Putnam Valley         | 150                      |
| OSCAWANA LAKE          | 7 Barger Hill Rd, Putnam Valley          | 157                      |
| DREWVILLE HEIGHTS      | 300-310 Route 22, Brewster               | 93                       |
| MEADS CORNERS          | 2490 Route 301, Carmel                   | 155                      |
| MOHEGAN LAKE           | Woodland Ave Ave, Yorktown               | 93                       |
| BREWSTER HILL          | 87 Hillside Park, Brewster               | 83                       |
| MT NINHAM              | 320 California Hill Path, Carmel         | 101                      |
| LINCOLNDALE            | Rte 202, Lincoln Dale                    | 106                      |
| MAHOPAC 3 SC           | 361 Route 6, Mahopac                     | 19                       |
| MAHOPAC 6 SC           | 692 Route 6, Mahopac                     | 28                       |
| HERITAGE HILLS         | 250 West Hill Drive, Somers              | 87                       |
| SOMERS                 | 294 Route 100, Somers                    | 108                      |
| PUTNAM VALLEY HOSPITAL | 670 Stoneleigh Ave, Carmel               | 120                      |
| YORKTOWN HEIGHTS 2     | 80 Route 6, Somers                       | 96                       |
| MOHANSIC               | 26-51 Strang Boulevard, Yorktown Heights | 47                       |
| CROMPOND               | 3800 Crompond Rd, Yorktown               | 125                      |
| BREWSTER               | Independent Way, Brewster                | 102                      |
| BULLET HOLE            | Scout Hill Road, Mahopac                 | 126                      |
| MAHOPAC 5 SC           | 946-954 S Lake Blvd, Mahopac             | 36                       |
| MAHOPAC FALLS          | 51 Crest Drive, Mahopac                  | 121                      |
| GOLDENS BRIDGE         | Exit 6A I-684, Goldens Bridge            | 102                      |
| CROTON FALLS           | Sun Valley Drive, North Salem            | 100                      |
| PUTNAM VALLEY          | Williams Drive, Putnam Valley            | 106                      |
| CARMEL                 | 1183 Route 6, Carmel                     | 117                      |
| LAKE MAHOPAC           | 55 McAlpin Avenue, Carmel                | 122                      |



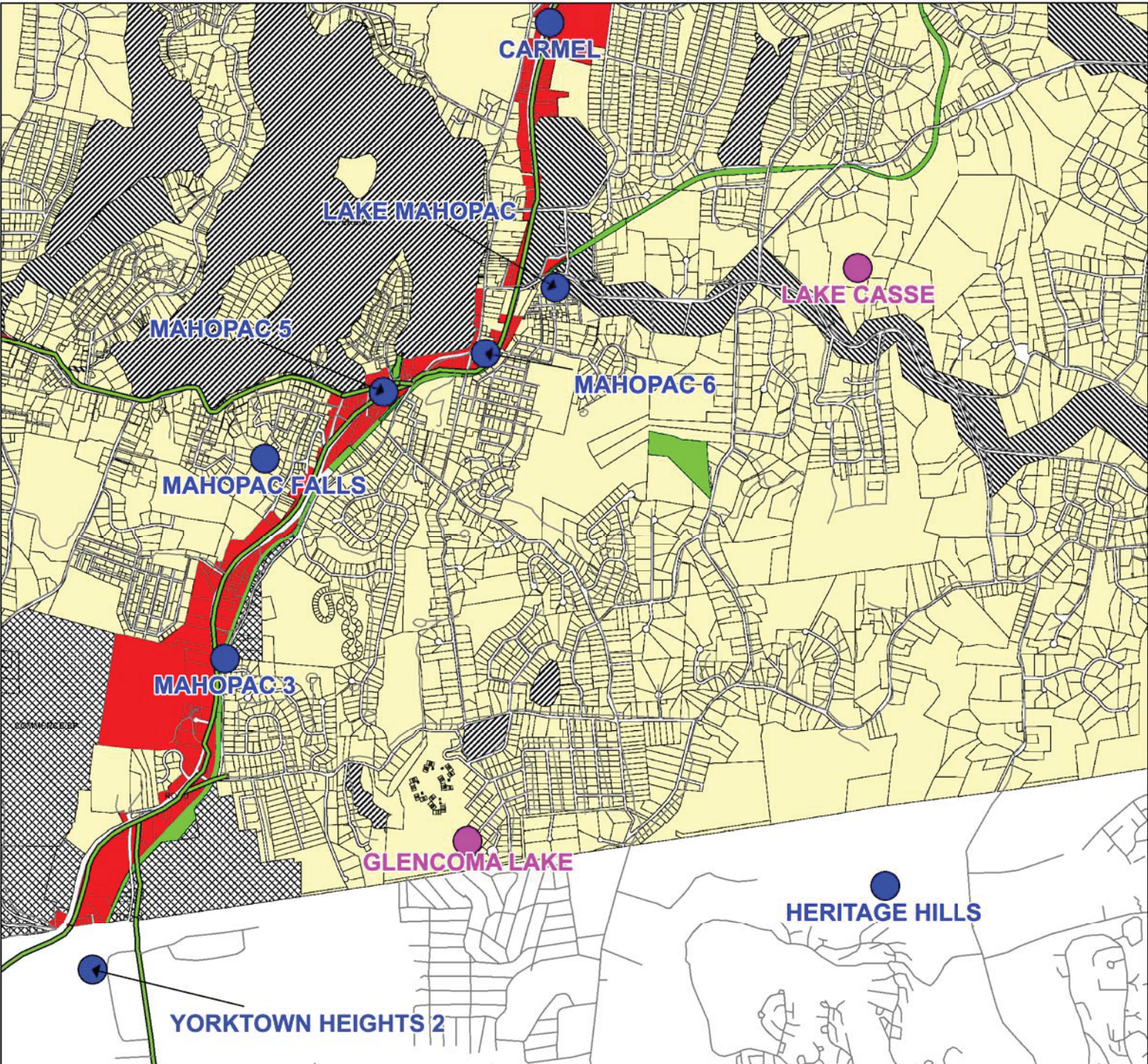


Exhibit AR

# Glenacom

Existing Verizon Wireless Sites on Town Zoning Map

Walton Drive  
Mahopac, NY 10541

| DISTRICTS |                         |
|-----------|-------------------------|
|           | COMMERCE/BUSINESS PARK  |
|           | COMMERCIAL              |
|           | CONSERVATION            |
|           | NEW YORK CITY WATERSHED |
|           | NEW YORK CITY MOA       |
|           | RECREATION/TRAILWAY     |
|           | RESIDENTIAL             |
|           | WATERBODY               |

- Verizon Wireless Existing Sites
- Verizon Wireless Proposed Sites

Specialists in Wireless Systems

Prepared by A. PierCon  
01/14/2020

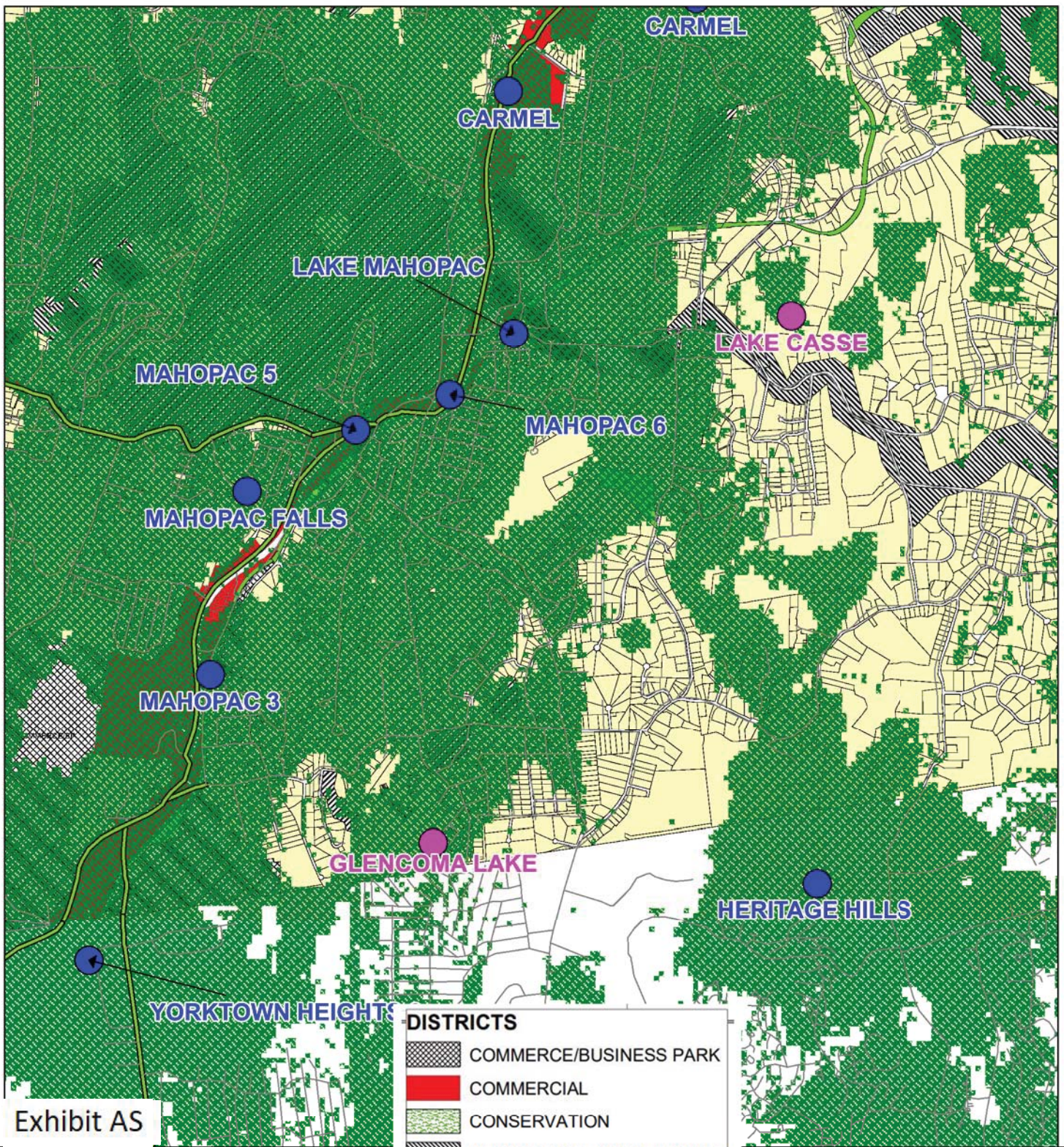


Exhibit AS

**DISTRICTS**

|  |                         |
|--|-------------------------|
|  | COMMERCE/BUSINESS PARK  |
|  | COMMERCIAL              |
|  | CONSERVATION            |
|  | NEW YORK CITY WATERSHED |
|  | NEW YORK CITY MOA       |
|  | RECREATION/TRAILWAY     |
|  | RESIDENTIAL             |
|  | WATERBODY               |

Glenacom  
 Existing Verizon Wireless  
 Suburban 700 MHz  
 In-Building LTE Coverage  
 Sites on Town Zoning Map

Walton Drive  
 Mahopac, NY 10541

- Verizon Wireless Existing Sites
- Verizon Wireless Proposed Sites
- Existing Reliable Coverage (>= -95dBm RSRP)



Prepared by A. PierCon  
 01/14/2020

# Exhibit AT - Scanner Calibration Certificate

## Scanner Calibration Certificate

**TRSRenTelco**  
1830 West Airfield Drive  
DFW Airport, Texas 75261

**Calibration Certificate Traceability Statement**

Asset Number: 1180486  
MFG/Model Number: PCTEL/IBFLEX;F  
Serial Number: 81410004  
Description: IBflex Super Config  
Customer: PIERCON SOLUTIONS, LLC  
Address: 63 BEAVER BROOK RD. STE 201  
LINCOLN PARK NJ 07035

Customer P.O. No: 190927RC-1  
Rental Agreement Number: 1773753-0  
Certificate Number: 17737530118048618816

This certificate applies to the instrument identified above and shall not be reproduced, except in full, without written approval of TRS-RenTelco.  
This certifies that the above instrument was calibrated to manufacturer's specifications using approved procedures and traceable measurement standards.  
This calibration was performed by an approved vendor.  
The Quality System of TRS-RenTelco is registered by UL DQS Certificate Number 10000112 to the Quality Management System Standard ISO 9001:2008. TRS-RenTelco's Laboratory is in compliance with MIL-STD-45662A, ANSINCSSL Z540-1-1994, ISO/IEC 17025:2005 and ISO 10012:2003.  
Measurement standards are calibrated at planned intervals. Traceability is to the International System of Units (SI) through the National Institute of Standards and Technology (NIST) or other recognized National Metrology Institute (NMI), natural physical constants, consensus standards, or by ratio type measurements using self calibrating techniques. Supporting documentation relative to traceability is available for review by appointment.  
This instrument is initially being sent to the above customer calibrated and fully functional.  
Although the calibration laboratory is in compliance with ANSINCSSL Z540-1-1994 and MIL-STD-45662A this calibration certificate is issued only as a Traceability Statement and does not carry the requirement of recalibration at the end of rental and customer notification of Out of Tolerance conditions.  
TRS-RenTelco's calibration interval for this instrument is 24 months.

Processed By: RODNEY REYES      Calibration Date: Aug 16, 2018  
Calibration Due Date: Aug 16, 2020

Quality Assurance: *Allen J Todd*

Peel Off Sticker Here ----> **TRSRenTelco** 900-671-6354  
ID: 1180486      Date: 08/16/18  
AV      Due: 08/16/20

Certificate Print Date: September 27, 2019      Page 1 of 1



# **PINNACLE TELECOM GROUP**

*Professional and Technical Services*

## **ANTENNA SITE FCC RF COMPLIANCE ASSESSMENT AND REPORT**

### **HOMELAND TOWERS, LLC**

**SITE "NY054 – GLENCOMA LAKE"  
WALTON DRIVE  
MAHOPAC, NY**

DECEMBER 11, 2019

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| <b>COMPLIANCE ANALYSIS</b>           | <b>7</b>  |
| <b>COMPLIANCE CONCLUSION</b>         | <b>12</b> |

## **CERTIFICATION**

**APPENDIX A. BACKGROUND ON THE FCC MPE LIMIT**

**APPENDIX B. SUMMARY OF EXPERT QUALIFICATIONS**

## **INTRODUCTION AND SUMMARY**

At the request of Homeland Towers, LLC, Pinnacle Telecom Group has performed an independent expert assessment of radiofrequency (RF) levels and related FCC compliance for proposed wireless antenna operations on a proposed 140-foot monopole to be located on Walton Drive in Mahopac, NY.

Homeland Towers refers to the prospective site as “NY054 – Glencoma Lake”, and the proposed monopole will accommodate the directional panel antennas of up to four wireless carriers. At this time, Verizon Wireless plans to occupy the highest antenna mounting position on the pole.

The FCC requires wireless antenna operators to perform an assessment of the RF levels from all the transmitting antennas at a site whenever antenna operations are added or modified, and ensure compliance with the FCC Maximum Permissible Exposure (MPE) limit in areas of unrestricted public access, i.e., at street level around the site.

In this case, the compliance assessment will include the RF effects of a worst-case hypothetical collocation of three wireless carriers’ antennas. By worst case, we mean that the carriers whose maximum capacity relates to higher emitted power levels will be hypothetically assumed to occupy the lower mounting positions on the monopole, thus matching higher power and smaller distances to ground-level around the site.

The analysis will conservatively assume all the wireless carriers are operating at maximum capacity and maximum power in each of their FCC-licensed frequency bands. With that extreme degree of conservatism incorporated in the analysis, we can have great confidence that the actual RF effects from any combination of wireless operators, however they might actually be positioned on the pole, would be in compliance with the FCC’s MPE limit.

This assessment of antenna site compliance is based on the FCC limit for general population “maximum permissible exposure” (MPE), a limit established

as safe for continuous exposure to RF fields by humans of either sex, all ages and sizes, and under all conditions.

The result of an FCC compliance assessment can be described in layman's terms by expressing the calculated RF levels as simple percentages of the FCC MPE limit. In that way, the figure 100 percent serves as the reference for compliance, and calculated RF levels below 100 percent indicate compliance with the MPE limit. An equivalent way to describe the calculated results is to relate them to a "times-below-the-limit" factor. Here, we will apply both descriptions.

The result of the FCC compliance assessment in this case is as follows:

- At street level around the site, the conservatively calculated maximum RF level caused by the combination of the wireless carriers' panel antenna operations is 2.4215 percent of the FCC general population MPE limit, well below the 100-percent reference for compliance. In other words, even with calculations designed to significantly overstate the RF levels versus those that could actually occur at the site, the worst-case calculated RF level in this case is still more than 40 times below the limit defined by the federal government as safe for continuous exposure of the general public.
- The results of the calculations provide a clear demonstration that the RF levels from as many as four wireless carriers, even under worst-case collocation circumstances, would satisfy the FCC requirement for controlling potential human exposure to RF fields. Moreover, because of the conservative methodology and assumptions applied in this analysis, RF levels actually caused by any combination of wireless operators' antenna operations at this site will be even less significant than the calculation results here indicate.

The remainder of this report provides the following:

- relevant technical data on the parameters for the four wireless carriers;

- ❑ a description of the applicable FCC mathematical model for assessing compliance with the MPE limit, and application of the relevant technical data to that model; and
- ❑ analysis of the results of the calculations, and the compliance conclusion for the proposed site.

In addition, two Appendices are included. Appendix A provides background on the FCC MPE limit, along with a list of key references. Appendix B provides a summary of the qualifications of the author of this report.

## **ANTENNA AND TRANSMISSION DATA**

As described, the proposed 140-foot monopole will be able to accommodate as many as four wireless carriers' antennas. This analysis will include an assumption of "worst-case" collocation by four wireless carriers – Verizon Wireless, AT&T, Sprint and T-Mobile.

The worst-case collocation methodology basically involves taking the carriers with the most available spectrum and the opportunity for higher power levels and hypothetically positioning them at the lower points on the monopole – thus matching the most power with the shorter distances to the ground. Typically, the vertical spacing between different wireless carriers' antennas on a pole is 10 feet.

The transmission parameters for each of the wireless carriers are described below.

Verizon Wireless is licensed to operate in the 746, 869, 1900 and 2100 MHz frequency bands. In the 746 MHz band, Verizon uses four 40-watt channels per antenna sector. In the 869 MHz band, Verizon uses four 40-watt channels per sector. In the 1900 MHz band, Verizon uses four 40-watt channels per antenna sector. In the 2100 MHz band, Verizon uses four 40-watt channels per sector.

AT&T is licensed to operate in the 700, 850, 1900, 2100 and 2300 MHz frequency bands. In the 700 MHz band, AT&T uses four 40-watt RF channels per



sector. In the 850 MHz band, AT&T uses seven 20-watt channels per sector. In the 1900 MHz band, AT&T uses four 30-watt channels per sector. In the 2100 MHz band, AT&T uses four 45-watt channels per sector. Lastly, in the 2300 MHz band, AT&T uses four 25-watt channels per sector.

Sprint is licensed to operate in the 800 MHz, 1900 MHz and 2500 MHz frequency bands. In the 800 MHz band, Sprint uses two 50-watt channels per antenna sector. In the 1900 MHz band, Sprint uses four 40-watt channels per sector. In the 2500 MHz band, Sprint uses three 40-watt channels per sector.

T-Mobile is licensed to operate in the 600 MHz, 700 MHz, 1900 MHz and 2100 MHz frequency bands. In the 600 MHz band, T-Mobile uses four 40-watt channels per sector. In the 700 MHz band, T-Mobile uses one 40-watt channel per sector. In the 1900 MHz band, T-Mobile uses five 30-watt channels per sector. In the 2100 MHz band, T-Mobile uses one 40-watt channel and two 80-watt channels per sector.

Based on the proposed mounting heights and then followed by overall available power levels, we will hypothetically assign the mounting heights (to the centerline of the antennas) as follows:

- Verizon Wireless: 136 feet
- Sprint: 126 feet
- T-Mobile: 116 feet
- AT&T: 106 feet

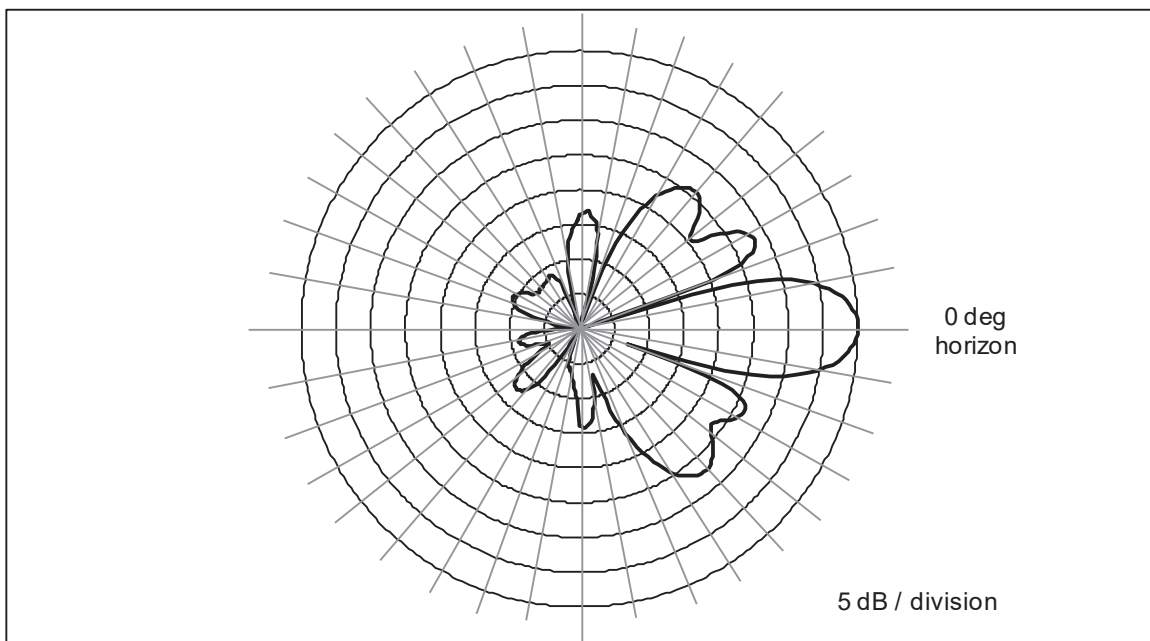
The area below the antennas, at street level, is of interest in terms of potential “uncontrolled” exposure of the general public, so the antenna’s vertical-plane emission characteristic is used in the calculations, as it is a key determinant in the relative level of RF emissions in the “downward” direction.

By way of illustration, Figure 1, below, shows the vertical-plane pattern of a typical 1900 MHz panel antenna. The antenna is effectively pointed at the three o’clock position (the horizon) and the pattern at different angles is described

using decibel units. The use of a decibel scale in incidentally visually understates the relative directionality characteristic of the antenna in the vertical plane. Where the antenna pattern reads 20 dB, the relative RF energy emitted at the corresponding downward angle is 1/100<sup>th</sup> of the maximum that occurs in the main beam (at 0 degrees); at 30 dB, the energy is 1/1000<sup>th</sup> of the maximum.

Note that the automatic pattern-scaling feature of our internal software may skew side-by-side visual comparisons of different antenna models, or even different parties' depictions of the same antenna model.

**Figure 1. 1900 MHz Directional Panel Antenna – Vertical-plane Pattern**



## Compliance Analysis

FCC Office of Engineering and Technology Bulletin 65 (“OET Bulletin 65”) provides guidelines for mathematical models to calculate potential RF exposure levels at various points around transmitting antennas.

Around an antenna site at ground level (in what is called the “far field” of the antennas), the RF levels are directly proportional to the total antenna input power and the relative antenna gain (focusing effect) in the downward direction of

interest – and the levels are otherwise inversely proportional to the square of the straight-line distance to the antenna. Conservative calculations also assume the potential RF exposure is enhanced by reflection of the RF energy from the intervening ground. Our calculations will assume a 100% “perfect”, mirror-like reflection, which is the absolute worst-case approach.

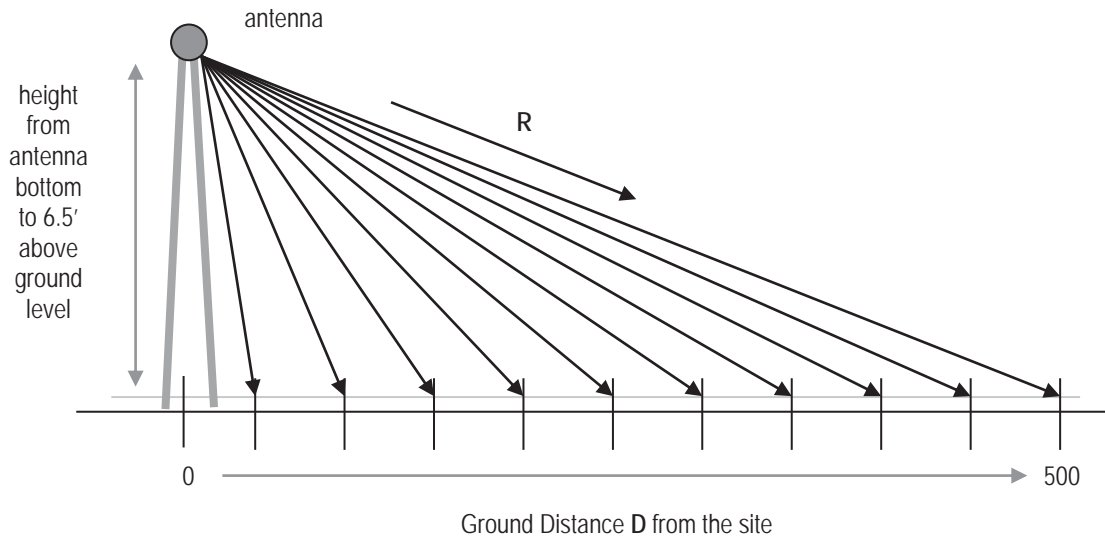
The formula for ground-level MPE compliance assessment of any given wireless antenna operation is as follows:

$$\text{MPE\%} = (100 * \text{TxPower} * 10^{(\text{Gmax-Vdisc})/10} * 4) / (\text{MPE} * 4\pi * R^2)$$

where

|                               |   |                                                                                                                                                                         |
|-------------------------------|---|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| MPE%                          | = | RF level, expressed as a percentage of the FCC MPE limit applicable to continuous exposure of the general public                                                        |
| 100                           | = | factor to convert the raw result to a percentage                                                                                                                        |
| TxPower                       | = | maximum net power into antenna sector, in milliwatts, a function of the number of channels per sector, the transmitter power per channel, and line loss                 |
| $10^{(\text{Gmax-Vdisc})/10}$ | = | numeric equivalent of the relative antenna gain in the direction of interest downward toward ground level                                                               |
| 4                             | = | factor to account for a 100-percent-efficient energy reflection from the ground, and the squared relationship between RF field strength and power density ( $2^2 = 4$ ) |
| MPE                           | = | FCC general population MPE limit                                                                                                                                        |
| R                             | = | straight-line distance from the RF source to the point of interest, centimeters                                                                                         |

The MPE% calculations are normally performed out to a distance of 500 feet from the facility to points 6.5 feet (approximately two meters, the FCC-recommended standing height) off the ground, as illustrated in Figure 2 on the next page.



**Figure 2. Street-level MPE% Calculation Geometry**

It is popularly thought that the farther away one is from an antenna, the lower the RF level – which is generally but not universally correct. The results of MPE% calculations fairly close to the site will reflect the variations in the vertical-plane antenna pattern as well as the variation in straight-line distance to the antennas. Therefore, RF levels may actually increase slightly with increasing distance within the range of zero to 500 feet from the site. As the distance approaches 500 feet and beyond, though, the antenna pattern factor becomes less significant, the RF levels become primarily distance-controlled and, as a result, the RF levels generally decrease with increasing distance. In any case, the RF levels more than 500 feet from a wireless antenna site are well understood to be sufficiently low and always in compliance.

FCC compliance for a collocated antenna site is assessed in the following manner. At each distance point away from the site, an MPE% calculation is made for each antenna operation, including the individual components of dual-band operations. Then, at each point, the sum of the individual MPE% contributions is compared to 100 percent, where the latter figure serves as a normalized reference for compliance with the MPE limit. We refer to the sum of the individual MPE% contributions as “total MPE%”, and any calculated total MPE% result exceeding 100 percent is, by definition, higher than the limit and

represent non-compliance and a need to take action to mitigate the RF levels. If all results are below 100 percent, that indicates compliance with the federal regulations on controlling exposure.

Note that the following conservative methodology and assumptions are incorporated into the MPE% calculations on a general basis:

1. The antennas are assumed to be operating continuously at maximum RF power – i.e., with the maximum number of channels and the maximum transmitter power per channel.
2. The power-attenuation effects of any shadowing or visual obstruction to a line-of-sight path from the antennas to the points of interest at ground level are ignored.
3. The calculations intentionally minimize the distance factor (R) by assuming a 6'6" human and performing the calculations from the bottom (rather than the centerline) of the antenna.
4. The potential RF exposure at ground level is assumed to be 100-percent enhanced (increased) via a "perfect" field reflection from the intervening ground.

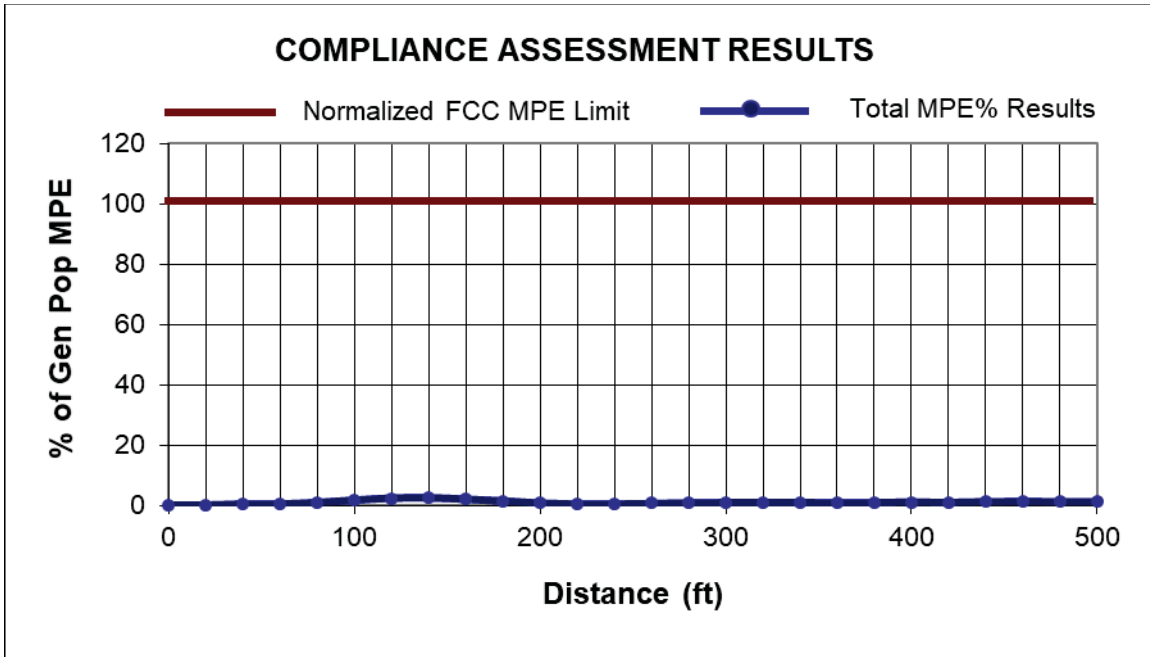
The net result of these assumptions is to intentionally and significantly overstate the calculated RF levels relative to the RF levels that will actually occur – and the purpose of this conservatism is to allow "safe-side" conclusions about compliance with the MPE limit.

The table on the following page provides the results of the MPE% calculations for each operator, with the worst-case overall result highlighted in bold in the last column.

| Ground Distance (ft) | Verizon Wireless MPE% | AT&T MPE% | Sprint MPE% | T-Mobile MPE% | Total MPE%    |
|----------------------|-----------------------|-----------|-------------|---------------|---------------|
| 0                    | 0.1202                | 0.0778    | 0.0290      | 0.0054        | 0.2324        |
| 20                   | 0.1290                | 0.1041    | 0.0125      | 0.0096        | 0.2552        |
| 40                   | 0.2156                | 0.2024    | 0.0124      | 0.1260        | 0.5564        |
| 60                   | 0.1861                | 0.2696    | 0.0425      | 0.0706        | 0.5688        |
| 80                   | 0.4676                | 0.3638    | 0.0399      | 0.1479        | 1.0192        |
| 100                  | 0.5230                | 0.6948    | 0.0750      | 0.4346        | 1.7274        |
| 120                  | 0.5516                | 1.0007    | 0.0665      | 0.6987        | 2.3175        |
| 140                  | 0.9227                | 0.8700    | 0.1006      | 0.5282        | <b>2.4215</b> |
| 160                  | 0.9187                | 0.7693    | 0.1754      | 0.1404        | 2.0038        |
| 180                  | 0.5165                | 0.7536    | 0.1130      | 0.1033        | 1.4864        |
| 200                  | 0.1560                | 0.5311    | 0.0640      | 0.1083        | 0.8594        |
| 220                  | 0.1082                | 0.3058    | 0.0348      | 0.0745        | 0.5233        |
| 240                  | 0.1858                | 0.2408    | 0.0500      | 0.0598        | 0.5364        |
| 260                  | 0.2958                | 0.2564    | 0.0680      | 0.0917        | 0.7119        |
| 280                  | 0.3365                | 0.2477    | 0.0834      | 0.2192        | 0.8868        |
| 300                  | 0.4367                | 0.2311    | 0.0882      | 0.2481        | 1.0041        |
| 320                  | 0.4493                | 0.2538    | 0.0879      | 0.2264        | 1.0174        |
| 340                  | 0.4489                | 0.3531    | 0.0565      | 0.1665        | 1.0250        |
| 360                  | 0.4301                | 0.3176    | 0.0383      | 0.1032        | 0.8892        |
| 380                  | 0.3916                | 0.4758    | 0.0232      | 0.0761        | 0.9667        |
| 400                  | 0.3381                | 0.6655    | 0.0157      | 0.1047        | 1.1240        |
| 420                  | 0.2784                | 0.6068    | 0.0305      | 0.0956        | 1.0113        |
| 440                  | 0.2556                | 0.7583    | 0.0560      | 0.1596        | 1.2295        |
| 460                  | 0.2048                | 0.8488    | 0.0516      | 0.1779        | 1.2831        |
| 480                  | 0.1629                | 0.7823    | 0.0703      | 0.2095        | 1.2250        |
| 500                  | 0.1509                | 0.7232    | 0.0651      | 0.2490        | 1.1882        |

As indicated, the overall worst-case calculated result is 2.4215 percent of the FCC general population MPE limit – well below the 100-percent reference for compliance, particularly given the significant conservatism incorporated in the analysis.

A graph of the overall calculation results, provided on the next page, provides perhaps a clearer *visual* illustration of the relative compliance of the calculated RF levels. The line representing the overall calculation shows an obviously clear, consistent margin to the FCC MPE limit.



## Compliance Conclusion

The FCC MPE limit has been constructed in such a manner that continuous human exposure to RF fields up to and including 100 percent of the MPE limit is acceptable and completely safe.

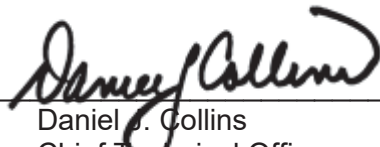
The conservatively calculated maximum RF effect at street level from the assumed worst-case collocation of as many as four wireless carriers is 2.4215 percent of the FCC general population MPE limit. In other words, even with an extremely conservative analysis intended to dramatically overstate the RF effects of any wireless collocation scenario at the site, the calculated worst-case RF level is still more than 40 times below the FCC MPE limit.

The results of the calculations indicate clear compliance with the FCC regulations and the related MPE limit, even for a worst-case collocation scenario. Because of the conservative calculation methodology and operational assumptions applied in this analysis, the RF levels actually caused by any more realistic collocation of antennas at this site would be even less significant than the calculation results here indicate, and compliance would be achieved by an even larger margin.

## CERTIFICATION

It is the policy of Pinnacle Telecom Group that all FCC RF compliance assessments are reviewed, approved, and signed by the firm's Chief Technical Officer who certifies as follows:

1. I have read and fully understand the FCC regulations concerning RF safety and the control of human exposure to RF fields (47 CFR 1.1301 *et seq*).
2. To the best of my knowledge, the statements and information disclosed in this report are true, complete and accurate.
3. The analysis of site RF compliance provided herein is consistent with the applicable FCC regulations, additional guidelines issued by the FCC, and industry practice.
4. The results of the analysis indicate that the subject antenna operations will be in compliance with the FCC regulations concerning the control of potential human exposure to the RF emissions from antennas.



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Daniel J. Collins  
Chief Technical Officer  
Pinnacle Telecom Group, LLC

12/11/19

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Date



## Appendix A. Background on the FCC MPE Limit

As directed by the Telecommunications Act of 1996, the FCC has established limits for maximum continuous human exposure to RF fields.

The FCC maximum permissible exposure (MPE) limits represent the consensus of federal agencies and independent experts responsible for RF safety matters. Those agencies include the National Council on Radiation Protection and Measurements (NCRP), the Occupational Safety and Health Administration (OSHA), the National Institute for Occupational Safety and Health (NIOSH), the American National Standards Institute (ANSI), the Environmental Protection Agency (EPA), and the Food and Drug Administration (FDA). In formulating its guidelines, the FCC also considered input from the public and technical community – notably the Institute of Electrical and Electronics Engineers (IEEE).

The FCC's RF exposure guidelines are incorporated in Section 1.301 *et seq* of its Rules and Regulations (47 CFR 1.1301-1.1310). Those guidelines specify MPE limits for both occupational and general population exposure.

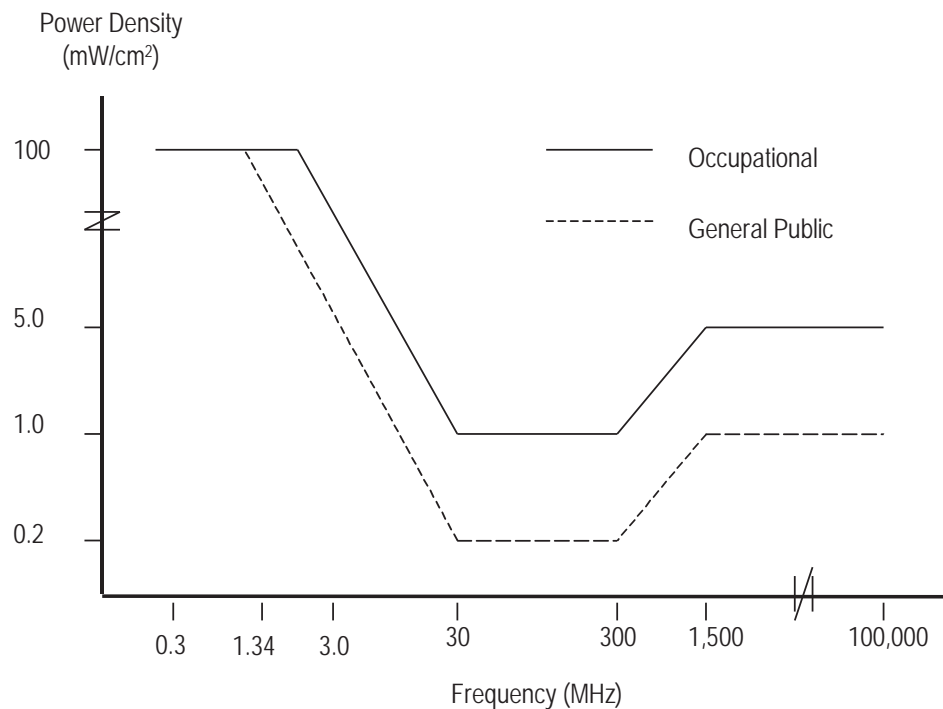
The specified continuous exposure MPE limits are based on known variation of human body susceptibility in different frequency ranges, and a Specific Absorption Rate (SAR) of 4 watts per kilogram, which is universally considered to accurately represent human capacity to dissipate incident RF energy (in the form of heat). The occupational MPE guidelines incorporate a safety factor of 10 or greater with respect to RF levels known to represent a health hazard, and an additional safety factor of five is applied to the MPE limits for general population exposure. Thus, the general population MPE limit has a built-in safety factor of more than 50. The limits were constructed to appropriately protect humans of both sexes and all ages and sizes and under all conditions – and continuous exposure at levels equal to or below the applicable MPE limits is considered to result in no adverse health effects or even health risk.

The reason for *two* tiers of MPE limits is based on an understanding and assumption that members of the general public are unlikely to have had appropriate RF safety training and may not be aware of the exposures they receive; occupational exposure in controlled environments, on the other hand, is assumed to involve individuals who have had such training, are aware of the exposures, and know how to maintain a safe personal work environment.

The FCC's RF exposure limits are expressed in two equivalent forms, using alternative units of field strength (expressed in volts per meter, or V/m), and power density (expressed in milliwatts per square centimeter, or mW/cm<sup>2</sup>). The table on the next page lists the FCC limits for both occupational and general population exposures, using the mW/cm<sup>2</sup> reference, for the different radio frequency ranges.

| Frequency Range (F)<br>(MHz) | Occupational Exposure<br>(mW/cm <sup>2</sup> ) | General Public Exposure<br>(mW/cm <sup>2</sup> ) |
|------------------------------|------------------------------------------------|--------------------------------------------------|
| 0.3 - 1.34                   | 100                                            | 100                                              |
| 1.34 - 3.0                   | 100                                            | 180 / F <sup>2</sup>                             |
| 3.0 - 30                     | 900 / F <sup>2</sup>                           | 180 / F <sup>2</sup>                             |
| 30 - 300                     | 1.0                                            | 0.2                                              |
| 300 - 1,500                  | F / 300                                        | F / 1500                                         |
| 1,500 - 100,000              | 5.0                                            | 1.0                                              |

The diagram below provides a graphical illustration of both the FCC's occupational and general population MPE limits.



Because the FCC's RF exposure limits are frequency-shaped, the exact MPE limits applicable to the instant situation depend on the frequency range used by the systems of interest.

The most appropriate method of determining RF compliance is to calculate the RF power density attributable to a particular system and compare that to the MPE limit applicable to the operating frequency in question. The result is usually expressed as a percentage of the MPE limit.

For potential exposure from multiple systems, the respective percentages of the MPE limits are added, and the total percentage compared to 100 (percent of the limit). If the result is less than 100, the total exposure is in compliance; if it is more than 100, exposure mitigation measures are necessary to achieve compliance.

Note that the FCC “categorically excludes” all “non-building-mounted” wireless antenna operations whose mounting heights are more than 10 meters (32.8 feet) from the routine requirement to demonstrate compliance with the MPE limit, because such operations “are deemed, individually and cumulatively, to have no significant effect on the human environment”. The categorical exclusion also applies to *all* point-to-point antenna operations, regardless of the type of structure they’re mounted on. Note that the FCC considers any facility qualifying for the categorical exclusion to be automatically in compliance.

### ***FCC References on RF Compliance***

47 CFR, FCC Rules and Regulations, Part 1 (Practice and Procedure), Section 1.1310 (Radiofrequency radiation exposure limits).

FCC Second Memorandum Opinion and Order and Notice of Proposed Rulemaking (FCC 97-303), *In the Matter of Procedures for Reviewing Requests for Relief From State and Local Regulations Pursuant to Section 332(c)(7)(B)(v) of the Communications Act of 1934 (WT Docket 97-192), Guidelines for Evaluating the Environmental Effects of Radiofrequency Radiation (ET Docket 93-62), and Petition for Rulemaking of the Cellular Telecommunications Industry Association Concerning Amendment of the Commission's Rules to Preempt State and Local Regulation of Commercial Mobile Radio Service Transmitting Facilities*, released August 25, 1997.

FCC First Memorandum Opinion and Order, ET Docket 93-62, *In the Matter of Guidelines for Evaluating the Environmental Effects of Radiofrequency Radiation*, released December 24, 1996.

FCC Report and Order, ET Docket 93-62, *In the Matter of Guidelines for Evaluating the Environmental Effects of Radiofrequency Radiation*, released August 1, 1996.

FCC Office of Engineering and Technology (OET) Bulletin 65, “Evaluating Compliance with FCC Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields”, Edition 97-01, August 1997.

FCC Office of Engineering and Technology (OET) Bulletin 56, “Questions and Answers About Biological Effects and Potential Hazards of RF Radiation”, edition 4, August 1999.

## Appendix B. SUMMARY of EXPERT QUALIFICATIONS

**Daniel J. Collins, Chief Technical Officer, Pinnacle Telecom Group, LLC**

|                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|----------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Synopsis:</b>                                   | <ul style="list-style-type: none"> <li>• 40+ years of experience in all aspects of wireless system engineering, related regulation, and RF exposure</li> <li>• Has performed or led RF exposure compliance assessments on more than 20,000 antenna sites since the latest FCC regulations went into effect in 1997</li> <li>• Has provided testimony as an RF compliance expert more than 1,500 times since 1997</li> <li>• Have been accepted as an FCC compliance expert in New York, New Jersey, Connecticut, Pennsylvania and more than 40 other states, as well as by the FCC</li> </ul> |
| <b>Education:</b>                                  | <ul style="list-style-type: none"> <li>• B.E.E., City College of New York (Sch. Of Eng.), 1971</li> <li>• M.B.A., 1982, Fairleigh Dickinson University, 1982</li> <li>• Bronx High School of Science, 1966</li> </ul>                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Current Responsibilities:</b>                   | <ul style="list-style-type: none"> <li>• Leads all PTG staff work involving RF safety and FCC compliance, microwave and satellite system engineering, and consulting on wireless technology and regulation</li> </ul>                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Prior Experience:</b>                           | <ul style="list-style-type: none"> <li>• Edwards &amp; Kelcey, VP – RF Engineering and Chief Information Technology Officer, 1996-99</li> <li>• Bellcore (a Bell Labs offshoot after AT&amp;T's 1984 divestiture), Executive Director – Regulation and Public Policy, 1983-96</li> <li>• AT&amp;T (Corp. HQ), Division Manager – RF Engineering, and Director – Radio Spectrum Management, 1977-83</li> <li>• AT&amp;T Long Lines, Group Supervisor – Microwave Radio System Design, 1972-77</li> </ul>                                                                                       |
| <b>Specific RF Safety / Compliance Experience:</b> | <ul style="list-style-type: none"> <li>• Involved in RF exposure matters since 1972</li> <li>• Have had lead corporate responsibility for RF safety and compliance at AT&amp;T, Bellcore, Edwards &amp; Kelcey, and PTG</li> <li>• While at AT&amp;T, helped develop the mathematical models for calculating RF exposure levels</li> <li>• Have been relied on for compliance by all major wireless carriers, as well as by the federal government, several state and local governments, equipment manufacturers, system integrators, and other consulting / engineering firms</li> </ul>     |
| <b>Other Background:</b>                           | <ul style="list-style-type: none"> <li>• Author, <i>Microwave System Engineering</i> (AT&amp;T, 1974)</li> <li>• Co-author and executive editor, <i>A Guide to New Technologies and Services</i> (Bellcore, 1993)</li> <li>• National Spectrum Management Association (NSMA) – former three-term President and Chairman of the Board of Directors; was founding member, twice-elected Vice President, long-time member of the Board, and was named an NSMA Fellow in 1991</li> <li>• Have published more than 35 articles in industry magazines</li> </ul>                                    |

## Proposed Wireless Telecommunications Facility

Site Name: Glenacom Lake, NY- 054  
Walton Road  
Mahopac, NY

# VISUAL RESOURCE ASSESSMENT



HOMELAND TOWERS

Prepared for:  
Homeland Towers  
9 Harmony Street, 2nd Floor  
Danbury, CT 06810

December 5, 2022

Homeland Towers seeks approval from the Town of Carmel, NY to construct a wireless telecommunications facility (the "Facility") to be located on property on Walton Drive ("host property"). To address issues of potential visual impact, Saratoga Associates, Landscape Architects, Architects, Engineers, and Planners, P.C. was retained to conduct a Visual Resource Assessment ("VRA") of the proposed Project.

The study area for this VRA extends to a two-mile radius from the Facility (hereafter referred to as the "2-mile study area").

### **PROJECT DESCRIPTION**

The Facility will be located at 41° 20' 56.88" N, 73° 43' 49.94" W. ("Facility site"). The 66.7± acre host property is identified in Putnam County tax records as tax parcel 87.5-1-90. The existing ground elevation at the Facility site is approximately 741± feet above mean sea level (AMSL). The Facility is located approximately 130 feet east of Walton Drive. The Facility is approximately 500 feet north of the Putnam/Westchester County line.

The Facility involves the construction of a 140-foot-tall galvanized steel monopole style telecommunications tower designed to support up to four antenna levels. Associated ground equipment will be located within a 70-foot by 65-foot (4,550± square feet) lease area at the base of the tower. Access to the Facility site will be from a new 190± foot long 12-foot-wide gravel access drive from Walton Drive. Contained within the lease area will be a 3,705 square foot fenced compound enclosing the monopole tower and up to four (4) equipment pads for installation of proposed and future ground level equipment. The compound fence and ground level equipment will be approximately eight (8) feet tall.

### **LANDSCAPE SETTING**

The Facility is located within the Town of Carmel, NY (2017 estimated population 34,360<sup>1</sup>). The 66.7± acre host property is zoned R- Residential as defined by the Carmel Town Code. The northern portion of the host property is occupied by the Maple Hill Estates apartment complex. The southern portion of the host property is undeveloped woodland. The host property is bordered to the south a regional electric transmission corridor paralleling the Putnam/Westchester County boundary. Transmission towers within this corridor are primarily wooden "H" frame type estimated to be approximately 70 feet tall.

The 2-mile study area is a relatively even mix of low to moderate density (1/2 to 5 acre) single family residential properties and undeveloped woodlot. Structures are typically one- and two-story single-family homes within organized subdivisions or individual homes setback from local roads. Residential neighborhoods are commonly wooded with well landscaped understory

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<sup>1</sup> <https://www.census.gov/quickfacts/fact/table/carmeltownputnamcountyny/PST045217>

areas that generally limit views to the immediate foreground. Along roadways mature trees commonly extend to road edges preventing long distance vistas.

Walton Drive (east of Mountain View Drive) is a 950-foot-long dead-end street serving 12 single-family residential properties. An additional eight (8) single family properties are along Summit Circle Drive which intersects Walton Drive near the Facility. The nearest residential structure (53 Walton Drive) is approximately 170 feet east of the Facility site.

The topography within the 2-mile study area is characterized by a rolling and often steeply sloped landscape. There are multiple summit points within the study area. The topographic high point (elevation 960± feet above mean sea level [amsl]) is located along Crest Lane in the northern portion of the study area. The topographic low point is along Plum Brook (elevation 340± feet amsl) in the southern portion of the study area near Lincolndale, Westchester County.

Several bodies of water found within the study area. These include Lake Mahopac, Plum Brook, Glencoma Lake, Teakettle Spout Lake and Lake Lincolndale, and smaller other creeks and streams.

The study area is substantially wooded with large tracts of mature second growth deciduous forests interspersed with mature evergreen species. The tree canopy occupies approximately 5,400 acres of the 8,040-acre 2-mile study area (67%).<sup>2</sup> Mature tree cover generally ranges from 50 to 70 feet in height. Approximately 273 acres (3%) of the 2-mile study area is classified as pasture, cropland, or scrubland, approximately 3,319 acres (41%) is classified as low to moderate density developed land and 673 acres (8%) is classified as high-density development.<sup>3</sup>

### **VIEWSHED ANALYSIS**

Viewshed mapping identifies the geographic area within which there is a relatively high probability that some portion of the Facility could be visible considering the screening effect of intervening landform, vegetation and topography.

Global Mapper 20.0 GIS software was used to generate viewshed areas based on publicly available topographic and land cover datasets. Topographic data was derived from 2-meter resolution digital elevation models (DEM) acquired from the New York State GIS Clearinghouse.<sup>4</sup> Using Global Mapper's viewshed analysis tool, the proposed Facility location

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<sup>2</sup> Tree cover calculations are based on areas with 50% or greater tree canopy coverage within 30-meter x 30-meter grid cells as presented in the National Land Cover Database (NLCD) 2011 Percent Tree Canopy dataset. <https://viewer.nationalmap.gov/basic/#productSearch>

<sup>3</sup> Land Cover calculations are based on general land cover classifications as presented in the NLCD Land Cover dataset. <https://viewer.nationalmap.gov/basic/#productSearch>. These calculations are provided as a general description of land cover conditions which characterize the 2-mile study area.

<sup>4</sup> <https://orthos.dhSES.ny.gov/>

and height were input and a conservative offset of six feet was applied to account for the observer's eye level. The resulting viewshed identifies grid cells with a theoretical line-of-sight to the Facility high point (140 feet above ground level).

Within approximately one (1) mile of the Facility existing forest vegetation was manually digitized from ½-foot resolution digital ortho-photographs (2016) acquired from NYS Orthos On-line.<sup>5</sup> For the remainder of the 2-mile study area existing forest vegetation is based on areas with 75% or greater tree canopy coverage as presented in the National Land Cover Database (NLCD) 2011 Percent Tree Canopy dataset.<sup>6</sup> Within Putnam County building footprints were manually digitized from ½-foot resolution digital ortho-photographs. Within Westchester County building footprints were imported from the Westchester County GIS Data Warehouse.<sup>7</sup>

The screening effect of vegetation and built structures was incorporated by conservatively allocating 50 feet in vertical height to forest areas and 25 feet to building footprints. Forested areas and building footprints were removed from the viewshed result to account for affected areas located within structures or densely wooded cover.

Based on field observation, most trees in forested portions of the study area are taller than 50 feet. This height therefore represents a conservative estimate of the efficacy of vegetative screening. It is important to note that digitized vegetation is based on interpretation of forest areas that are clearly distinguishable in the source aerial photography. As such, the potential screening value of site-specific vegetative cover such as small hedgerows, street trees and individual trees and other areas of non-forest tree cover may not be represented in the viewshed analysis.

By themselves, the viewshed maps do not determine how much of the proposed Facility would be visible above intervening landform or vegetation (e.g., 100%, 50%, 10% etc. of total tower height), but rather the geographic area within which some portion of the Facility would theoretically be visible. Their primary purpose is to provide a general understanding of a Facility's potential visibility and identify areas to be visited during field reconnaissance.

Figure A1 identifies areas of potential project visibility at a macro scale within the 2-mile study area. Figure A2 provides a more localized assessment potential visibility within the 1-mile study area. Figure A1 and Figure A2 are provided in Appendix A.

#### **STUDY AREA RECONNAISSANCE**

On February 20, 2020 a construction crane was raised on the project site by project consultant PierCon Solutions for purpose of conducting a signal test. Saratoga Associates attended the

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<sup>5</sup> <https://orthos.dhSES.ny.gov/>

<sup>6</sup> <https://viewer.nationalmap.gov/basic/#productSearch>

<sup>7</sup> <https://giswww.westchestergov.com/wcgis/MunPlan/bed.htm>



signal test to use the crane as a proxy for the Facility to document potential visibility from off-site vantage points.

Due to existing forest vegetation at the proposed Facility center point the crane was positioned at the nearest accessible location along an existing unimproved road approximately 100 feet from the end of pavement on Walton Drive; approximately 140 feet southeast of the proposed tower position.

The ground elevation at the crane location was surveyed by PierCon Solutions and determined to be approximately 20 feet higher than the ground elevation at the actual proposed tower location. To account for this grade difference the crane was raised to height of approximately 120 feet to match the proposed top-of-tower elevation (i.e., 140-foot proposed tower height minus 20-foot grade differential). The top of the crane was approximately equal to the proposed top-of-tower elevation (890.8± feet amsl).

To help observers locate the crane from off-site vantage points a four-foot diameter red “spotter” balloon was flown approximately 30 feet above the top of the crane. This balloon was flown solely to make the crane more visible and did not represent the horizontal or vertical position of any proposed structure.

The crane was raised to the proposed top-of-tower elevation (890.8± feet ASL) at approximately 11:15am and remained at this elevation until approximately 1:30pm. At approximately 1:30 the crane was lowered by 20 feet to allow the radio frequency engineers to evaluate signal strength at a lower antenna height. At approximately 3:30pm the crane was lowered an additional 20 feet to evaluate signal strength at the next lower height increment.

The crane test was conducted during winter leaf-off season to represent the worst-case (i.e., most exposed) visual condition. Project visibility will be substantially less during summer leaf-on season.

While the crane was raised to the proposed top-of-tower elevation (890.8± feet amsl) two Saratoga Associates visual analysts drove public roads to inventory those areas where viewshed mapping identified potential Facility visibility. Photographs were taken from multiple vantage points to document the views in the direction of the Facility from places where a theoretical view was identified by viewshed analysis. Photos were also taken from locations where the balloon was not visible to balance the photo record and document visual conditions representative of less affected areas on the subject property.

Photographs were only taken while the crane was raised to the proposed top of tower elevation (890.8± feet amsl). Photographs were not taken while the crane lowered to either of the two lower heights. The lower crane elevations were used only for the radio frequency signal test and are not considered for the purpose of this visual assessment.

Photographs were taken using digital single lens reflex (“DSLR”) 24-mega pixel (minimum) cameras with a lens setting of approximately 50mm (35mm film equivalent). The precise coordinates of each photo location were recorded in the field using a handheld global positioning system (GPS) unit. Prior to field reconnaissance, the coordinates of the proposed telecommunications tower were programmed into a handheld GPS unit as a “waypoint.” The “waypoint indicator” function of the GPS (arrow pointing along a calculated bearing) was used to assist the visual analyst determine the direction of the Facility from each photo location in cases where the crane was not visible through or above intervening vegetation.

### **VISUAL RESOURCES**

Scenic Resources of Statewide Significance - To avoid subjectivity in assessing potential visual impact, the New York State Department of Environmental Conservation’s (“NYSDEC”) Program Policy on Assessing and Mitigating Visual Impact (DEP-00-02 [revised 12/13/2019] (“DEC Visual Policy”)) provides guidance in the determination of visual significance under the State Environmental Quality Review Act (SEQRA). Aesthetic impact is defined by the DEC Visual Policy as follows:

“Aesthetic impact occurs when there is a detrimental effect on the perceived beauty of a place or structure. Mere visibility of a project should not be a threshold for decision making. Instead a project, by virtue of its visibility, must clearly interfere with or reduce the public’s enjoyment or appreciation of the appearance of a significant place or structure.”<sup>8</sup>

The DEC Visual Policy defines an “inventoried resource” as a place recognized for its beauty and has been formally recognized as such by the Federal or State government.<sup>9</sup> Inventoried places are a matter of public record and are not arbitrarily or subjectively determined. The DEC Visual Policy contains specific criteria defining places considered to be aesthetic resources of statewide significance. These places are high value sites including state parks, scenic roads, wild, scenic and recreational rivers, state forests, wildlife management areas, scenic areas of statewide significance, Heritage Areas, National Natural Landmarks, state or federally designated trails, properties or districts listed on the National Register of Historic Places, among others.

The DEC Policy also does not apply to inventoried places that are not open to the general public. The DEC Visual Policy states:

“The Visual Policy is intended to address places or locations that have been officially designated for their aesthetic qualities and that are accessible to the

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<sup>8</sup> DEC Visual Policy, p.15. ([https://www.dec.ny.gov/docs/permits\\_ej\\_operations\\_pdf/visualpolicydep002.pdf](https://www.dec.ny.gov/docs/permits_ej_operations_pdf/visualpolicydep002.pdf))

<sup>9</sup> DEC Visual Policy, p.2.

public at large as opposed to places that may have individual or private importance only.”<sup>10</sup>

The only location meeting this criterion located within the Facility viewshed is the West Somers Methodist-Episcopal Church & Cemetery; a site listed on the National Register of Historic Places. This site, located in the Town of Somers, Westchester County, is approximately 1.7 miles southwest of the Facility and is fully screened by intervening vegetation and buildings. The location of this National Register site is indicated on Figure A1.

Aesthetic Resources of Local Importance - Aesthetic resources of local importance are publicly accessible places generally recognized and enjoyed by community residents and visitors for their unique aesthetic value. Aesthetic resources of local importance are established through local democratic processes and are not arbitrarily or subjectively determined. Such places are most commonly municipal parks, trails, bikeways, and may also include not-for-profit conservation lands and open space preserves.

Places meeting this criterion with the 2-mile study area include:

- Teakettle Park – Teakettle Park (2,320 feet north of the tower site) is a semi-public recreation area providing access to Teakettle Spout Lake for residents of the Teakettle Spout Park Lake District. Facilities include docks and picnic area. From this park the upper portion of the Facility may be seasonally visible through foreground trees during winter leaf-off conditions. Views will be substantially or fully screened during summer leaf-on season during the period when the park is most active. Figure C9 (A-B) in Appendix C illustrates the view from Teakettle Lake Park.
- Putnam County Trailway (4,840 feet west of tower site at its nearest point) – The Putnam County Trailway is a paved bicycle/pedestrian path located primarily on right-of-way lands of the former Putnam Division of the New York Central Railroad. The Putnam Right-of-Way spans 12.0 linear miles through Putnam County, from the Westchester border at Baldwin Place to Brewster Village. In the vicinity of the Facility the Putnam County Trailway closely parallels NYS Route 6. Views are typically limited to the immediate foreground by trailside vegetation. The facility will not be visible from a majority of the Trailway. A very brief and discrete view was identified in the vicinity of Astor Drive where the upper portion of the Facility may be visible above the tree line at a distance of approximately 1.25 miles. A photograph identifying the approximate location of the facility from this portion of the Putnam County Trailway is provided on page B19 in Appendix B.
- Chamber Park (1.6 mile north of tower site) – The Mahopac Chamber Community Park is located in downtown Mahopac at the corner of Routes 6 and 6N. Located on Mahopac

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<sup>10</sup> DEC Visual Policy, p.4.

lake, it features a gazebo, fountain, playground, walking paths and benches. The project is not visible from Chamber Park.

- Michael Geary Memorial Roller Hockey Rink (1.8 miles north of tower site) – Michael Geary Memorial Roller Hockey Rink includes an inline roller hockey rink, concession stand, picnic area, bleachers and restrooms. The project is not visible from the Michael Geary Memorial Roller Hockey Rink.
- Koegel Park (Town of Somers, Westchester County) – Koegel Park is located approximately 2-miles southwest of the Facility site. 68 acre Koegel Park provides passive recreation opportunities such as trails, greenway, picnic areas and parking. The project is not visible from Koegel Park.

Other Areas of Local Interest - While not rising to the threshold of statewide significance or local importance, other places of local interest have been included in this visual assessment to represent potential Facility views from roadways, residential neighborhoods and adjacent or nearby residential properties. Such locations are not representative of any aesthetically significant place as defined under the DEC Visual Policy and are not directly addressed under SEQRA. These places are addressed in this VRA to consider other potential Facility views that that may be of interest to local residents.

- Residential Areas - Within 1/2-mile of the Facility residential development is largely clustered in planned single-family residential subdivisions. Dense woodland and well landscaped understory areas commonly limit views from residential properties to the immediate foreground. From most residential properties, views of the Facility will be substantially screened by intervening dense mature woodland vegetation – even during winter leaf-off-season.

In Putnam County, nearby residential areas include the Kia-Ora Boulevard/Union Valley Road and Maple Hill Drive neighborhoods. Facility views along Walton Drive will be substantially limited to the immediate project vicinity near the dead-end segment southwest of Mountain View Drive. An elevated view exists at the cul-de-sac on the hill top on Summit Circle Drive. All identified views in this area are through existing deciduous trees during winter leaf-off season. Such views will be substantially or fully screened during summer leaf-on season. Figures C5 (A-B), C6 (A-B) and C7 (A-B) in Appendix C illustrate views from this residential area.

Brief intermittent glimpses of the upper portion of the Facility are found through existing deciduous during leaf-off season along portions of the Maple Hill Estates apartment complex. These views will be substantially or fully screened during summer leaf-on season. Figure C4 (A-B) in Appendix C illustrate a worst-case view from Maple Hill Estates.

Isolated areas of project visibility were also found along Lake Glenacom Road and Fassitt Drive at the cul-de-sac. The upper portion of the Facility will be visible above the tree line in along Glenacom Lake Road in the vicinity of Glencoma Lake at a distance of approximately 0.45 miles. Figures C2 (A-B) and C3 (A-B) in Appendix C illustrate views from this residential area.

In Westchester County the Juniper Drive residential area is immediately south of the electric transmission corridor which borders the host property to the south. This neighborhood is heavily wooded and views will be substantially or fully screened by intervening dense mature woodland vegetation – even during winter leaf-off-season. Discrete views through deciduous trees were found along Acacia Drive and Olive Drive. These views will be substantially or fully screened during summer leaf-on season. Figures C1 (A-B) and C9 in Appendix C illustrate views from this residential area.

- Roadways - Approximately 132 miles of public roadways are within the 2-mile study area. State Route 6 is the most heavily travelled roadway. State Route 6 near Union Valley Road has an average daily traffic volume (AADT) of approximately 17,891 vehicles. Union Valley Road near Maple Hill Drive has an AADT of 4,180 vehicles, Lovell Street at the Westchester County line has an AADT of 6,557 vehicles.

Viewshed analysis identified theoretical views along approximately seven linear miles (5.3%) of roadway within the 2-mile study area. Field investigation conducted during the crane test determined Facility visibility will be significantly less due to the presence of dense roadside vegetation in most areas. When visible, views from roadways will be brief and intermittent through roadside vegetation or between structures. Visibility during summer leaf-on season will be substantially or completely screened by roadside deciduous vegetation. Appendix B contains numerous photographs taken during the crane test documenting this limited degree of Facility visibility.

Given the complex visual stimuli encountered by motorists travelling in a moving vehicle, even if the Facility is visible it is probable viewer recognition of the Facility would be limited to a fraction of the total available viewing time. As the tendency of motorists is to focus down the road peripheral views of the Facility may go largely unnoticed by most travelers.

Photographs taken from visual resources during the February 20, 2020 crane test are provided as in Appendix B. Photographs were taken from the following places:

| Map ID/<br>Picture #<br>(Appendix B) | Location Description                     | Direction<br>to Tower | Distance<br>to Tower<br>(feet) | Theoretical View<br>Indicated by Land<br>Cover Viewshed -<br>(See Figure 2) | Tower Likely<br>Visible* | Photo/<br>Simulation<br>Provided as |
|--------------------------------------|------------------------------------------|-----------------------|--------------------------------|-----------------------------------------------------------------------------|--------------------------|-------------------------------------|
| 1                                    | Peach Road at #47                        | NE                    | 940                            | YES                                                                         | NO                       |                                     |
| 2                                    | Acacia Drive at #23                      | NE                    | 1,590                          | YES                                                                         | Seasonal**               | Figure C1(A-B)                      |
| 3                                    | Fassitt Drive near #61                   | ENE                   | 2,270                          | YES                                                                         | Seasonal**               | Figure C3(A-B)                      |
| 4                                    | Center Road near #34                     | E                     | 3,090                          | YES                                                                         | Seasonal**               |                                     |
| 5                                    | Lake Glenacom Road near #23              | ESE                   | 2,320                          | YES                                                                         | YES                      | Figure C3(A-B)                      |
| 6                                    | Union Valley Road near #185              | SE                    | 2,090                          | YES                                                                         | Seasonal**               |                                     |
| 7                                    | Maple Hill Drive near #66                | SE                    | 1,300                          | YES                                                                         | Seasonal**               | Figure C4(A-B)                      |
| 8                                    | Maple Hill Drive near #23                | SSE                   | 1,220                          | YES                                                                         | Seasonal**               |                                     |
| 9                                    | Kia-Ora Boulevard near #123              | SSW                   | 1,370                          | YES                                                                         | NO                       |                                     |
| 10                                   | Walton Drive at Mountain View Drive      | SW                    | 1,100                          | YES                                                                         | Seasonal**               |                                     |
| 11                                   | Walton Drive near Summit Circle Drive    | SW                    | 670                            | YES                                                                         | Seasonal**               |                                     |
| 12                                   | Walton Drive near #43                    | SW                    | 510                            | YES                                                                         | Seasonal**               | Figure C5(A-B)                      |
| 13                                   | Mountain View Drive at #31               | WSW                   | 1,010                          | YES                                                                         | Seasonal**               | Figure C6(A-B)                      |
| 14                                   | Summit Circle Drive at cul-de-sac        | WNW                   | 520                            | YES                                                                         | Seasonal**               | Figure C7(A-B)                      |
| 15                                   | Narcissus Drive near #34                 | NNW                   | 850                            | NO                                                                          | NO                       |                                     |
| 16                                   | Olive Drive at Boxwood Drive             | N                     | 1,400                          | YES                                                                         | NO                       |                                     |
| 17                                   | Olive Drive at Evergreen Drive           | N                     | 1,910                          | YES                                                                         | Seasonal**               | Figure C8(A-B)                      |
| 18                                   | Tulip Road at Evergreen Drive            | NNE                   | 2,060                          | YES                                                                         | Seasonal**               |                                     |
| 19                                   | Travis Road near #90                     | NE                    | 2,790                          | YES                                                                         | Seasonal**               |                                     |
| 20                                   | Travis Road near #59                     | NNE                   | 4,280                          | YES                                                                         | Seasonal**               |                                     |
| 21                                   | Beech Road near Lake Shore Drive         | NNW                   | 3,850                          | YES                                                                         | NO                       |                                     |
| 22                                   | Lovell Street at lake Lincolndale        | NW                    | 3,430                          | NO                                                                          | NO                       |                                     |
| 23                                   | Magnolia Drive near #13                  | NNW                   | 1,330                          | NO                                                                          | NO                       |                                     |
| 24                                   | Hillside Terrace at cul-de-sac           | W                     | 1,620                          | NO                                                                          | NO                       |                                     |
| 25                                   | Hillside Terrace at #51                  | WSW                   | 1,750                          | NO                                                                          | NO                       |                                     |
| 26                                   | Kia-Ora Boulevard at #67                 | SW                    | 2,160                          | YES                                                                         | NO                       |                                     |
| 27                                   | Teakettle Lake Park                      | SSW                   | 2,323                          | NO                                                                          | NO                       |                                     |
| 28                                   | Union Valley Road at McMillan Ave        | SW                    | 3,370                          | YES                                                                         | NO                       |                                     |
| 29                                   | Lovell Street at Stephanie Lane          | W                     | 2,980                          | NO                                                                          | NO                       |                                     |
| 30                                   | Heritage Hills at Stone View Court       | W                     | 5,780                          | NO                                                                          | NO                       |                                     |
| 31                                   | Heritage Hills at West Hill Drive        | WNWE                  | 6,910                          | NO                                                                          | NO                       |                                     |
| 32                                   | Heritage Hills at Golf Course Clubhouse  | WNW                   | 8,400                          | NO                                                                          | NO                       |                                     |
| 33                                   | Woodbine Drive near #66                  | SSW                   | 4,530                          | YES                                                                         | Seasonal**               |                                     |
| 34                                   | Plum Road near #48                       | S                     | 3,350                          | YES                                                                         | Seasonal**               |                                     |
| 35                                   | Putnam County Trailway near Astor Drive  | SSE                   | 6,470                          | YES                                                                         | YES                      |                                     |
| 36                                   | NYS Route 6 near #395                    | SE                    | 6,280                          | YES                                                                         | YES                      |                                     |
| 37                                   | Putnam County Trailway near Bloomer Road | SE                    | 5,540                          | YES                                                                         | Seasonal**               |                                     |
| 38                                   | Putnam County Trailway near Horton Drive | ESE                   | 4,800                          | YES                                                                         | Seasonal**               |                                     |
| 39                                   | NY Route 6 at Mahopac Village Center     | E                     | 6,630                          | YES                                                                         | YES                      |                                     |

**Terminology**

\* "Tower Likely Visible" is based on field observation during the crane test and differs from "Theoretical View Indicated by Land Cover Viewshed" due to the use of a highly conservative estimate of tree height in viewshed calculation (50 feet). In most cases mature woodland vegetation is significantly taller resulting in reduced project visibility.

\*\* "Seasonal" visibility indicates photo locations where the balloon was visible through intervening deciduous vegetation during winter leaf-off season. Such views will likely be fully screened during summer leaf-on season.

## PHOTO SIMULATIONS

To illustrate how the Facility will appear photo simulations were prepared from nine (9) affected photo locations. Photo simulations were developed by superimposing a rendering of a three-dimensional computer model of the proposed Facility into the base photograph taken from each corresponding visual receptor. The three-dimensional computer model was developed using *3D Studio Max Design*® software (3D Studio Max).

Simulated perspectives (camera views) were matched to the corresponding base photograph for each simulated view by replicating the precise coordinates of the field camera position (as recorded by handheld GPS) and the focal length of the camera lens used (e.g. 50mm). Precisely matching these parameters assures scale accuracy between the base photograph and the subsequent simulated view. The camera's elevation (Z) value is derived from digital elevation model (DEM) data plus the camera's height above ground level. The camera's target position was set to match the bearing of the corresponding existing condition photograph as recorded in the field. With the existing conditions photograph displayed as a "viewport background," and the viewport properties set to match the photograph's pixel dimensions, minor camera adjustments were made (horizontal and vertical positioning, and camera roll) to align the horizon in the background photograph with the corresponding features of the 3D model.

To verify the camera alignment, elements visible within the photograph (e.g., crane<sup>11</sup>, existing buildings, utility poles, topography, etc.) were identified and digitized from digital orthophotos as needed. Each element was assigned a Z value based on DEM data and then imported to 3D Studio Max. A 3D terrain model was also created (using DEM data) to replicate the existing local topography. The digitized elements were then aligned with corresponding elements in the photograph by adjusting the camera target. If necessary, slight camera adjustments were made for accurate alignment.

A daylight system was created matching the exact date and time of each baseline photograph to assure proper shading and shadowing of modeled elements.

Once the camera alignment was verified, a to-scale 3D model of the proposed 150-foot-tall monopole style telecommunications tower was merged into the model space. The 3D model of Facility was constructed in sufficient detail to accurately convey visual character and reveal impacts. The scale, alignment, elevations and location of the visible elements of the proposed tower are true to the conceptual design. Post production editing (i.e., airbrush out portion of

---

<sup>11</sup> In photo simulations the top of the proposed tower appears offset from the horizontal and/or vertical position of the crane visible in the corresponding existing conditions photograph. This is attributed to the offset location of the crane which was positioned at the nearest accessible location approximately 140 feet southeast of the proposed tower center.

tower that falls below or behind foreground topography and vegetation) was completed using Adobe Photoshop software. The methodology accurately represents the location, height and visual character of the proposed tower.

Photo simulations are provided in Appendix C.

## **CONCLUSIONS**

The Facility involves the construction of a 140-foot-tall galvanized steel monopole style telecommunications tower designed to support up to four antenna levels.

The Facility is located within a densely wooded area off of Walton Drive in the Town of Carmel, NY. The Facility is approximately 400 feet north of a regional electric transmission corridor paralleling the Putnam/Westchester County boundary. Transmission towers within this corridor are primarily wooden “H” frame type estimated to be approximately 70 feet tall.

The study area is suburban and is characterized by its hilly and occasionally steep terrain. There are large tracts of woodlands that will serve to screen views of the Project from most locations. When visible the Facility is primarily viewed through existing deciduous vegetation during the winter leaf-off season. Nearly all identified views will be substantially or fully screened during summer leaf-on season.

Facility views along Walton Drive are substantially limited to the immediate project vicinity near the dead-end segment southwest of Mountain View Drive. An elevated view exists at the cul-de-sac on the hill top on adjacent Summit Circle Drive. Brief intermittent glimpses of the upper portion of the Facility are also found within portions of the Maple Hill Estates apartment complex. All identified views in this area are through existing deciduous trees during winter leaf-off season. Such views will be substantially or fully screened during summer leaf-on season.

Isolated areas of project visibility were also found along Lake Glenacom Road and Fassitt Drive at the cul-de-sac. The upper portion of the Facility will be visible above the tree line in along Glenacom Lake Road in the vicinity of Glencoma Lake at a distance of approximately 0.45 miles.

South of the existing regional transmission corridor discrete views of the Facility will occur through deciduous trees in the Juniper Drive residential neighborhood along Acacia Drive and Olive Drive. This neighborhood is heavily wooded and views will be substantially or fully screened by intervening dense mature woodland vegetation – even during winter leaf-off season.

The facility will not be visible from any aesthetic resources of statewide significance. Visual impact is defined by the NYS Department of Environmental Conservation as follows:



*“Aesthetic impact occurs when there is a detrimental effect on the perceived beauty of a place or structure. Mere visibility a project should not be a threshold for decision making. Instead a project, by virtue of its visibility, must clearly interfere with or reduce the public’s enjoyment or appreciation of the appearance of a significant place or structure.”<sup>12</sup> Significant aesthetic impacts are those that may cause a diminishment of the public enjoyment and appreciation of an inventoried resource, or one that impairs the character or quality of such a place. Proposed large facilities by themselves should not be a trigger for a declaration of significance.”<sup>13</sup>*

In other words, the DEC Visual Policy recognizes that not everything that is visible rises to the level of an Aesthetic Impact, and not all Aesthetic Impacts rise to the level of a Significant Aesthetic Impact that may diminish public enjoyment of the resource.

Based on the degree of Facility visibility, it is clear that any remaining project visibility is not of a size or extent that it would constitute an unacceptable magnitude. Nor does the Facility affect a sufficient number of public viewers or geographic area where the Facility can reasonably be deemed to be visually important as defined by SEQRA.

Furthermore, when considered within the framework of the DEC Visual Policy’s definition of “significant adverse visual impact”, it is clear the Facility will not cause a diminishment of the public enjoyment and appreciation of any scenic or historic resource, or one that impairs the character or quality of such a place. As such the proposed Project will not result in an adverse visual impact.

Submitted by:



Matthew W. Allen, RLA

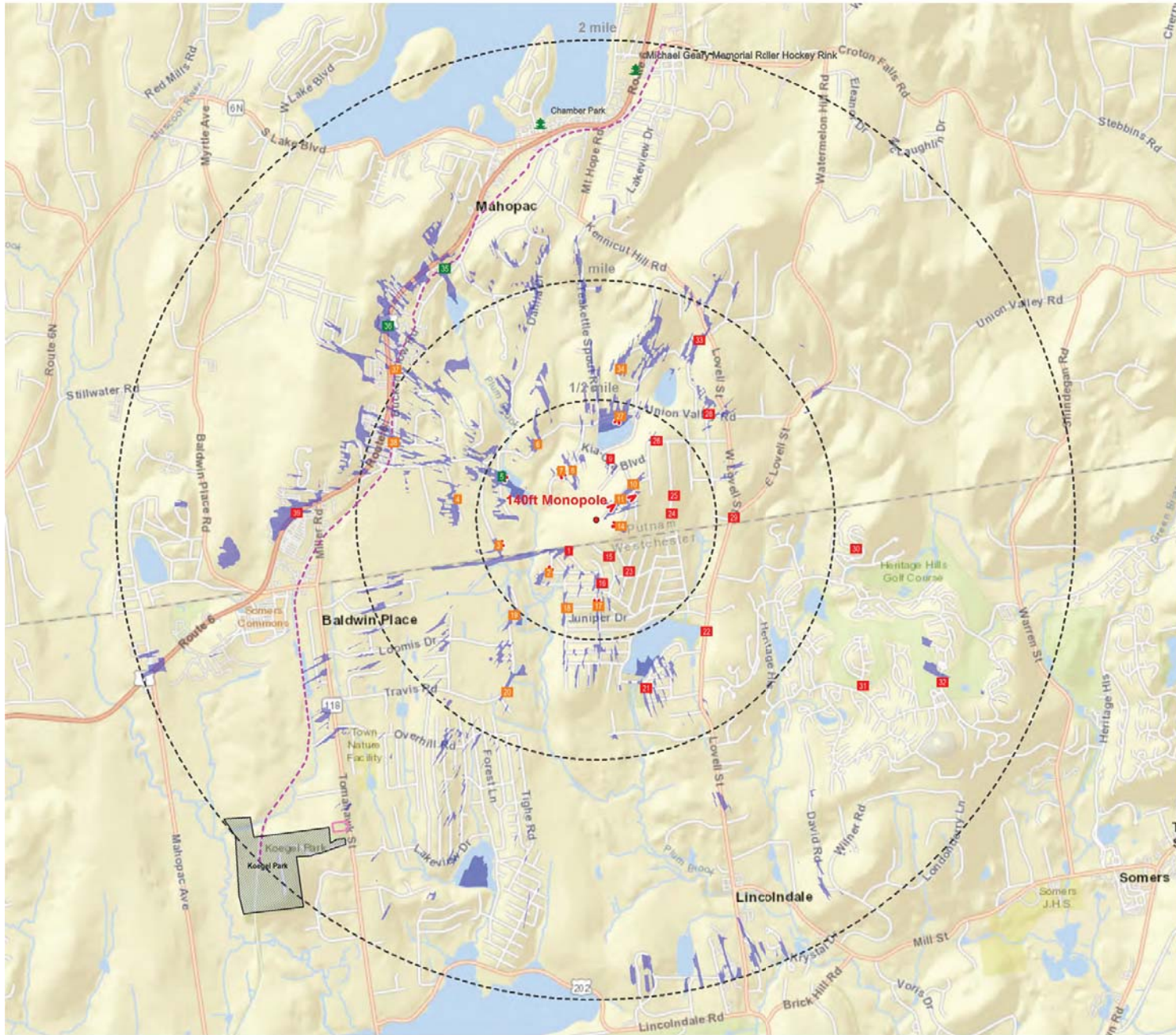
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<sup>12</sup> NYSDEC Visual Policy (DEP-00-2), p15.

<sup>13</sup> *Id.* p.5.

# APPENDIX A

## Viewshed Maps



### LEGEND

- Land Cover Viewshed Area - 140ft Monopole Tower (Includes existing vegetation and structures)

#### Photo Locations

- Facility not visible
- Facility visible seasonally
- Facility visible

#### Scenic Resources

- Municipal Recreation Area
- National Register of Historic Places
- - - Putnam Trailway
- 🌳 Municipal Park

Note: Viewshed areas are not definitive. Viewshed mapping provides a general understanding of where the proposed project is theoretically visible based on regional topographic, forest and building cover data sources.

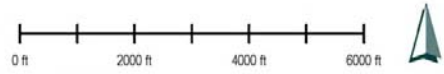
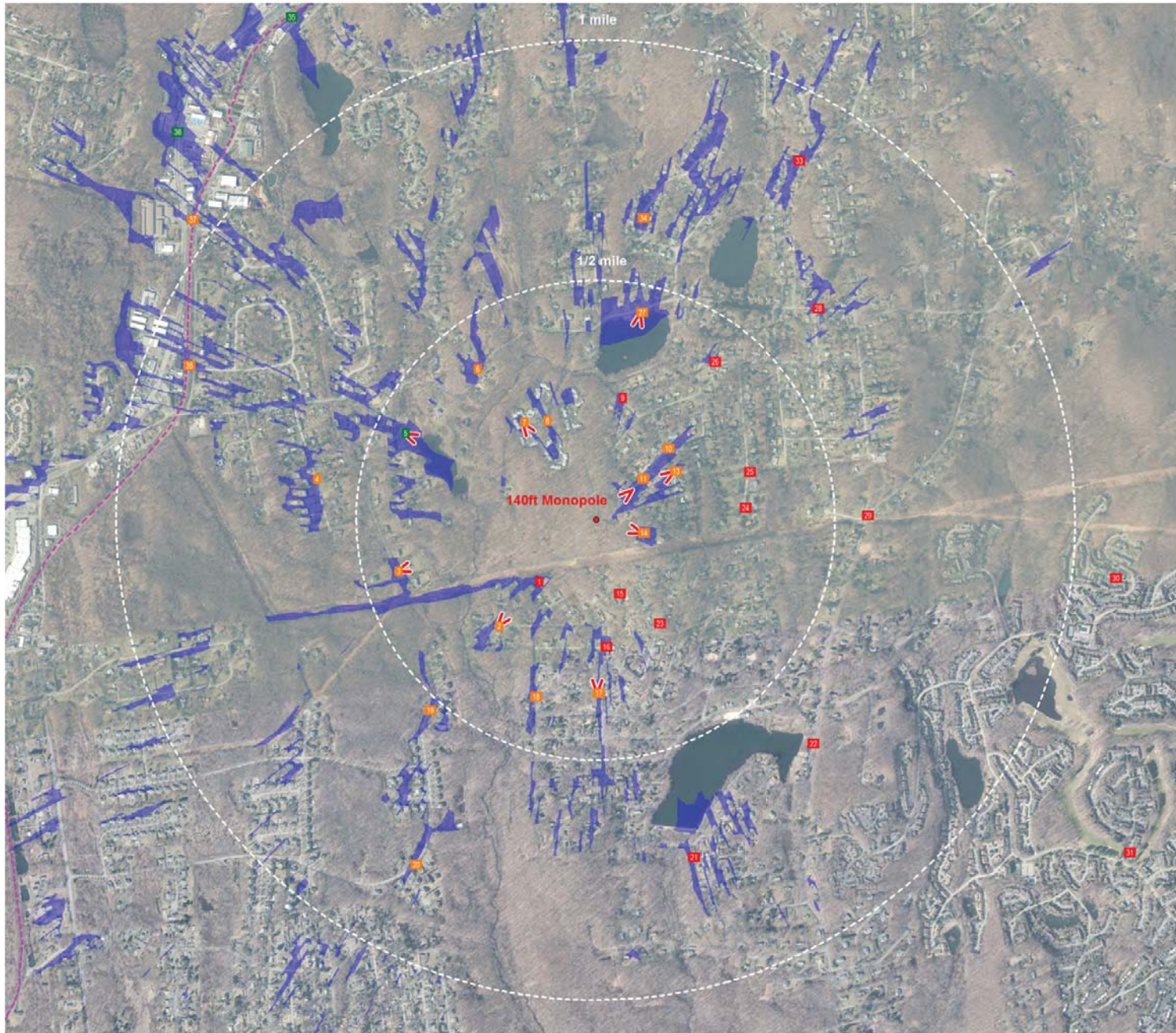


FIGURE 1  
VIEWSHED/SCENIC RESOURCE MAP - 2 MILE RADIUS  
Visual Resource Assessment  
Proposed Telecommunications Tower

Glenacom Lake Site (NY054)  
Walton Drive  
Mahopac, NY 10541

HOMELAND TOWERS



**LEGEND**

■ Land Cover Viewshed Area - 140ft Monopole Tower  
(Includes existing vegetation and structures)

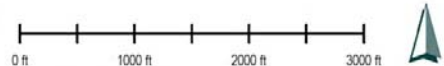
**Photo Locations**

- Facility not visible
- Facility visible seasonally
- Facility visible
- V Photo Simulations

**Scenic Resources**

- Municipal Recreation Area
- National Register of Historic Places
- Putnam Trailway
- Municipal Park

Note: Viewshed areas are not definitive. Viewshed mapping provides a general understanding of where the proposed project is theoretically visible based on regional topographic, forest and building cover data sources.



**FIGURE 2**  
 VIEWSHED/SCENIC RESOURCE MAP - 1 MILE RADIUS  
 Visual Resource Assessment  
 Proposed Telecommunications Tower



Glenacom Lake Site (NY054)  
 Walton Drive  
 Mahopac, NY 10541

# APPENDIX C

## Photo Log



VP1 - Peach Road at #47

Distance: 940 Feet



VP2 - Acacia Drive at #23

Distance: 1,590 Feet

PHOTO LOG

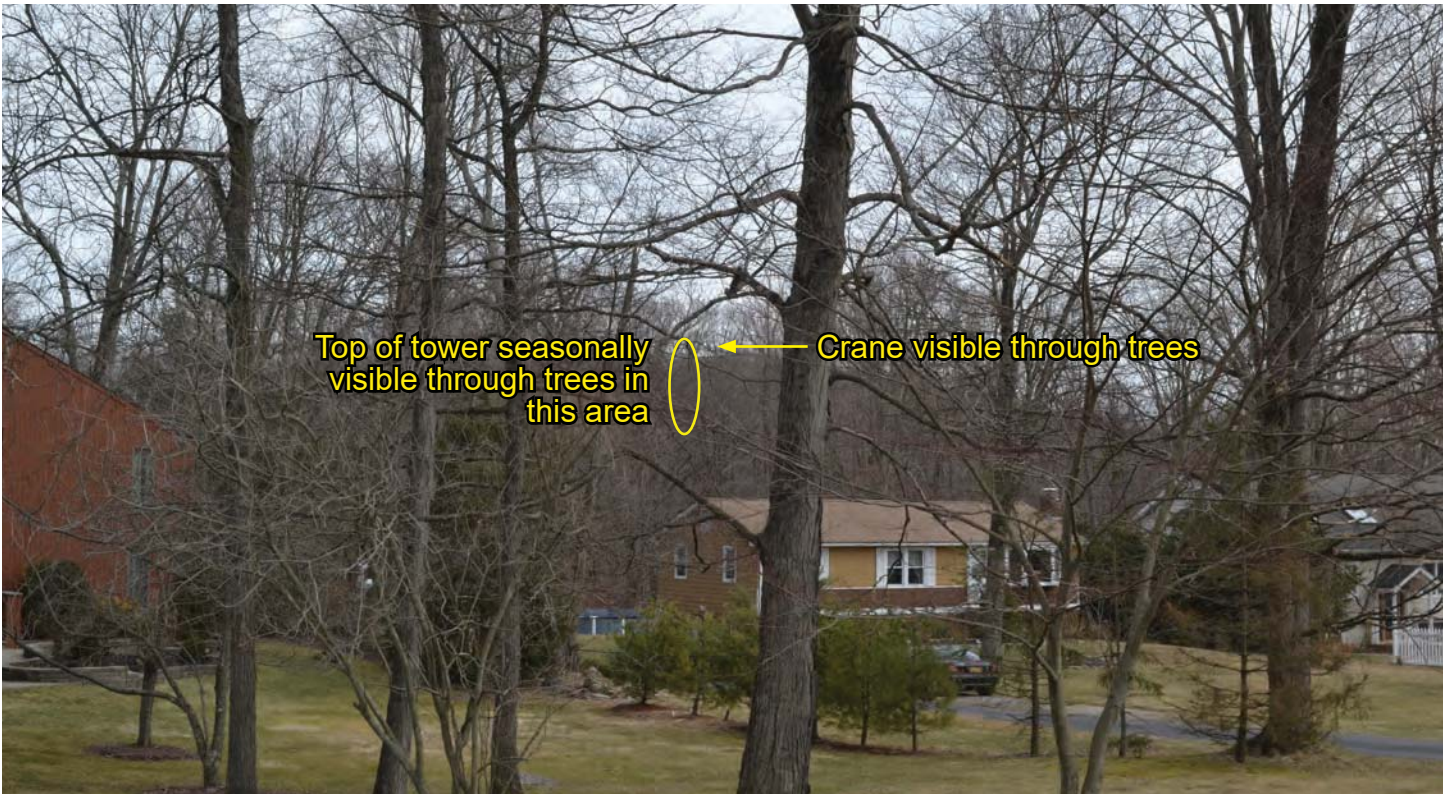
Figure B-1

Visual Resource Assessment  
**Proposed Telecommunications Tower**



VP3 - Fassitt Drive near #61

Distance: 2,270 Feet



VP4 - Center Road near #34

Distance: 3,090 Feet

PHOTO LOG

Figure B-2

Visual Resource Assessment  
Proposed Telecommunications Tower



VP5 - Lake Glenacom Road near #23

Distance: 2,320 Feet



VP6 - Union Valley Road near #185

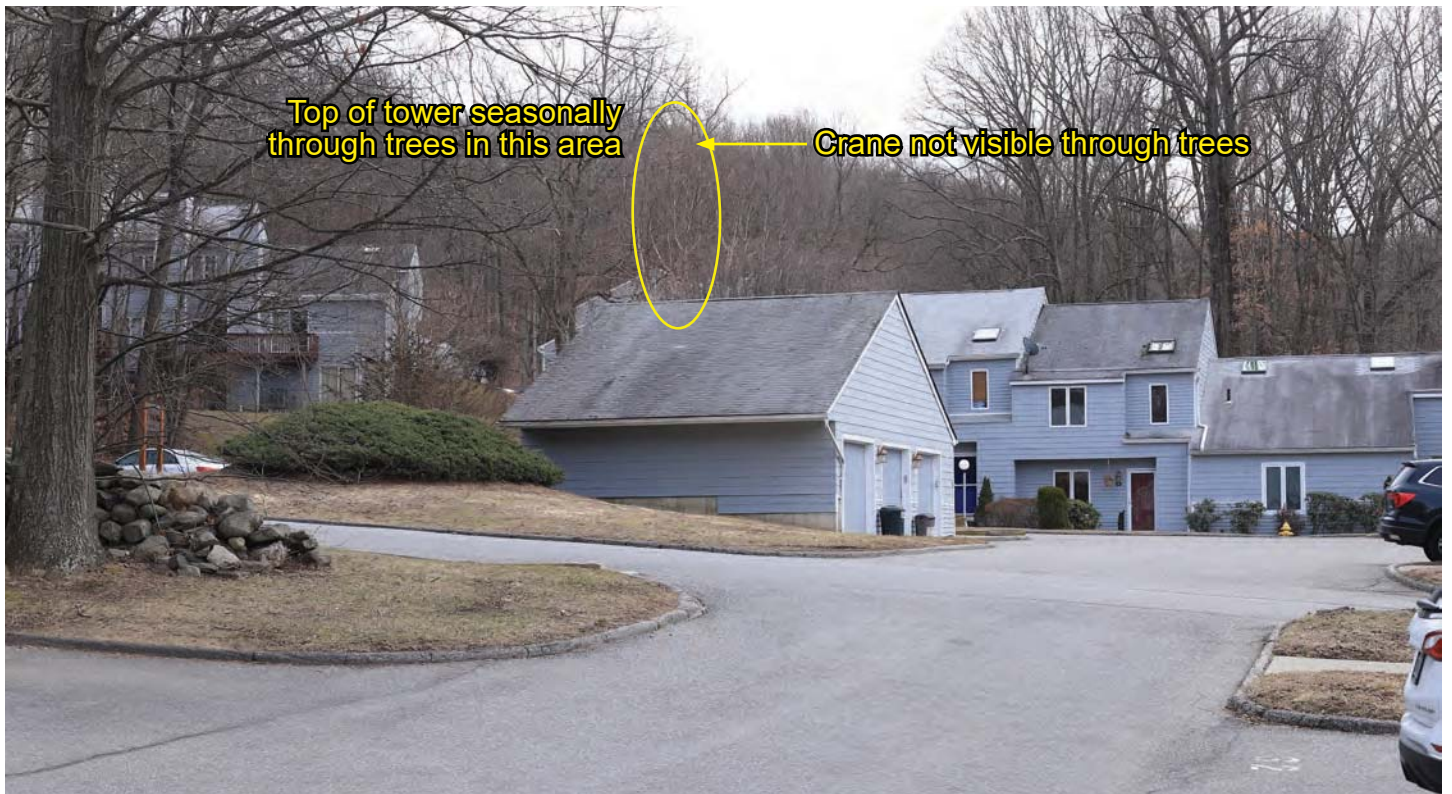
Distance: 2,090 Feet

PHOTO LOG

Figure B-4

Visual Resource Assessment  
Proposed Telecommunications Tower





VP7 - Maple Hill Drive near #66

Distance: 1,300 Feet



VP8 - Maple Hill Drive near #23

Distance: 1,220 Feet

PHOTO LOG

Figure B-1

Visual Resource Assessment  
**Proposed Telecommunications Tower**



VP9 - Kia-Ora Boulevard near #123

Distance: 1,370 Feet



VP10 - Walton Drive at Mountain View Drive

Distance: 1,100 Feet

PHOTO LOG

Figure B-6

Visual Resource Assessment  
Proposed Telecommunications Tower



VP11 - Walton Drive near Summit Circle Drive

Distance: 670 Feet



VP12 - Walton Drive near #43

Distance: 510 Feet

PHOTO LOG

Figure B-7

Visual Resource Assessment  
Proposed Telecommunications Tower

SARATOGA  
ASSOCIATES



Glenacom Lake Site (NY054)  
Walton Drive  
Mahopac, NY 10541



Crane not visible behind trees →

Top of tower seasonally visible through trees by trees in this area

VP13 - Mountain View Drive at #31

Distance: 1,010 Feet



Crane visible through trees →

Top of tower seasonally visible through trees in this area

VP14 - Summit Circle Drive at cul-de-sac

Distance: 520 Feet

PHOTO LOG

Figure B-8

Visual Resource Assessment  
Proposed Telecommunications Tower



VP15 - Narcissus Drive near #34

Distance: 850 Feet



VP16 - Olive Drive at Boxwood Drive

Distance: 1,400 Feet

PHOTO LOG

Figure B-9

Visual Resource Assessment  
Proposed Telecommunications Tower

SARATOGA  
ASSOCIATES



Glenacom Lake Site (NY054)  
Walton Drive  
Mahopac, NY 10541



VP17 - Olive Drive at Evergreen Drive

Distance: 1,910 Feet



VP18 - Tulip Road at Evergreen Drive

Distance: 2,060 Feet

PHOTO LOG

Figure B-10

Visual Resource Assessment  
**Proposed Telecommunications Tower**



Top of tower seasonally visible through trees in this area

Crane not visible behind trees

VP19 - Travis Road near #90

Distance: 2,790 Feet



Top of tower seasonally visible through trees in this area

Crane visible through trees

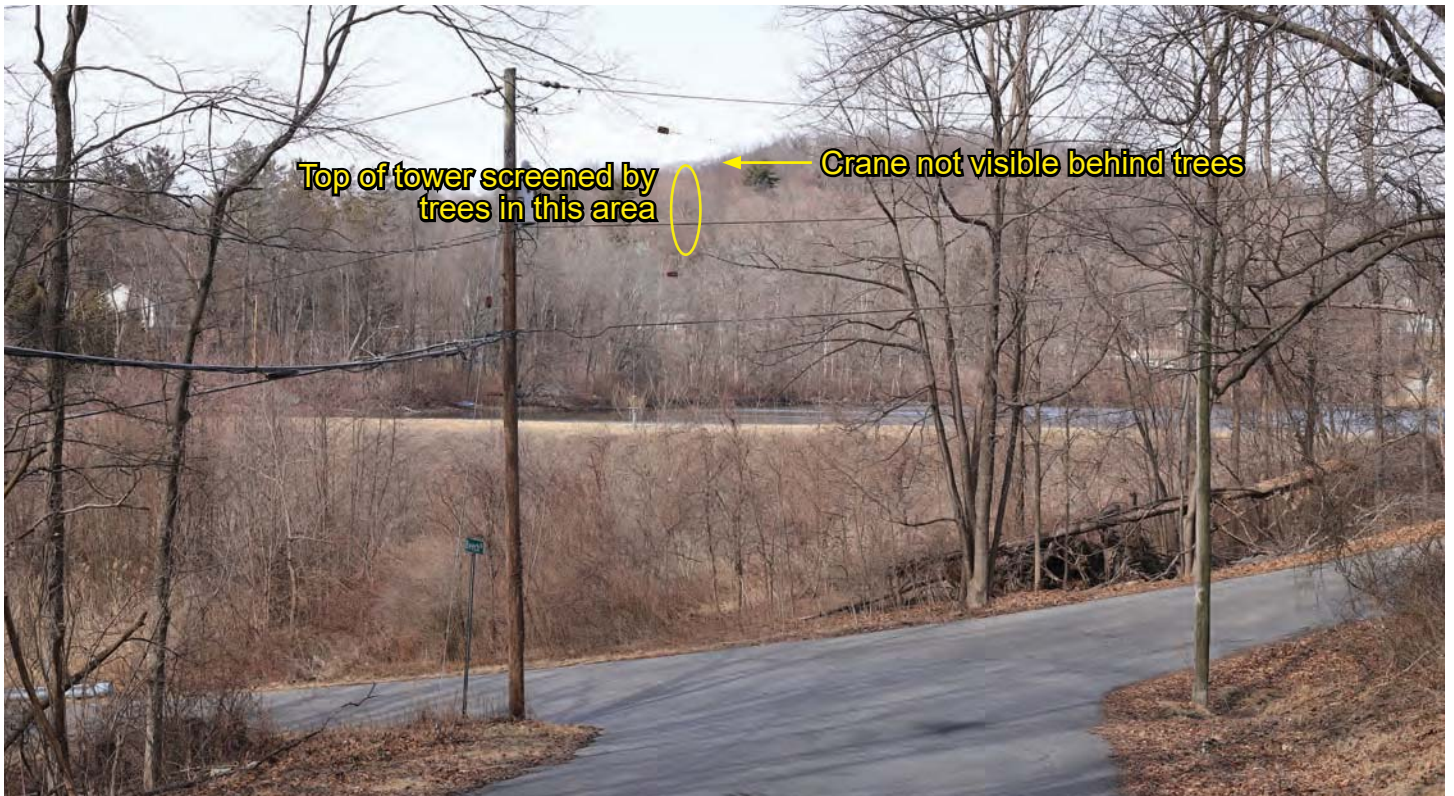
VP20 - Travis Road near #59

Distance: 4,280 Feet

PHOTO LOG

Figure B-11

Visual Resource Assessment  
Proposed Telecommunications Tower



VP21 - Beech Road near Lake Shore Drive

Distance: 3,850 Feet



VP22 - Lovell Street at Lake Lincolndale

Distance: 3,430 Feet

PHOTO LOG

Figure B-12

Visual Resource Assessment  
**Proposed Telecommunications Tower**

**SARATOGA**  
ASSOCIATES



Glenacom Lake Site (NY054)  
Walton Drive  
Mahopac, NY 10541





Top of tower screened by trees in this area

Crane not visible behind trees

VP23 - Magnolia Drive near #13

Distance: 1,330 Feet



Crane not visible behind hill

Top of tower screened by hill in this area

VP24 - Hillside Terrace at cul-de-sac

Distance: 1,620 Feet

PHOTO LOG

Figure B-13

Visual Resource Assessment  
Proposed Telecommunications Tower



VP25 - Hillside Terrace at #51

Distance: 1,750 Feet



VP26 - Kia-Ora Boulevard at #67

Distance: 2,160 Feet

PHOTO LOG

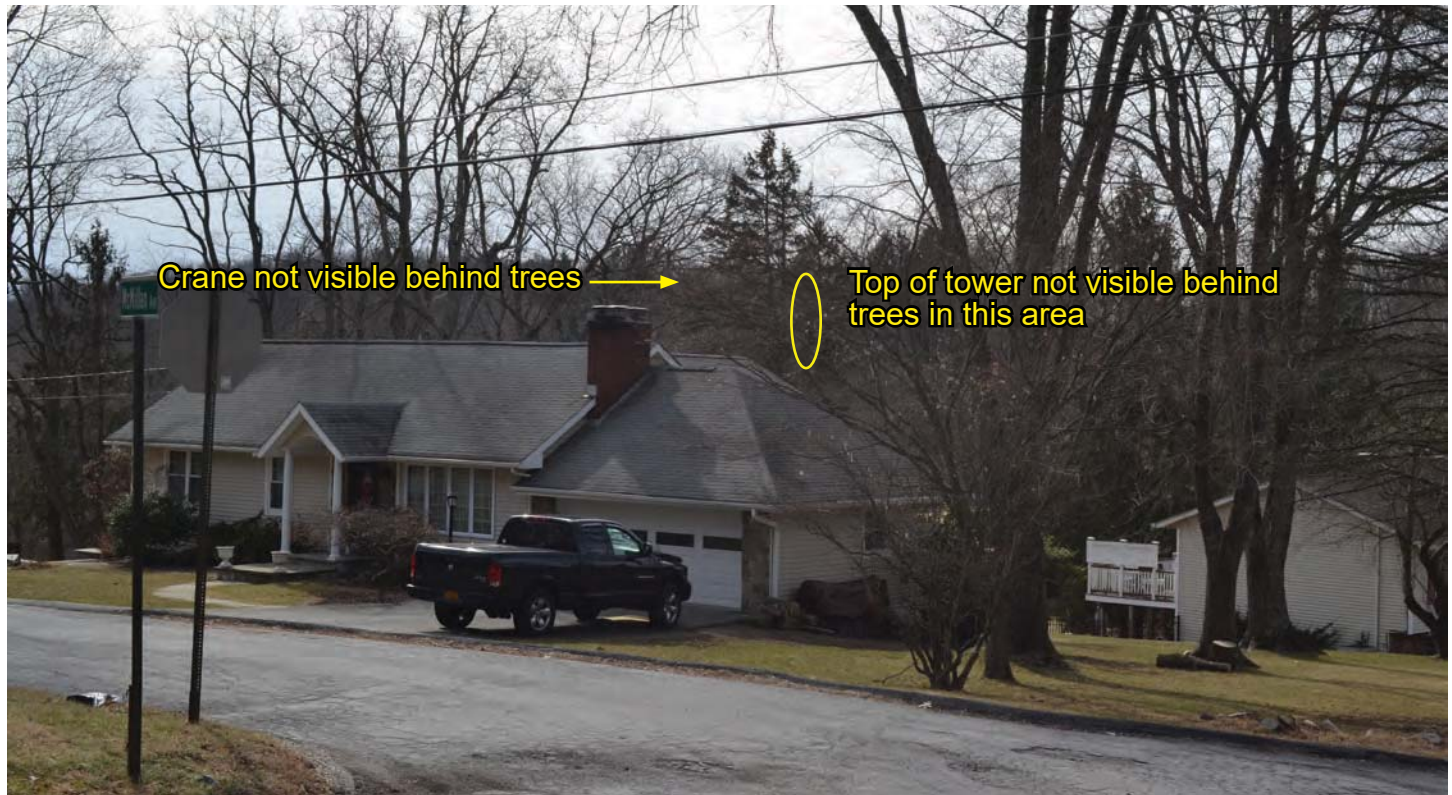
Figure B-14

Visual Resource Assessment  
**Proposed Telecommunications Tower**



VP27 - Teakettle Lake Park

Distance: 2,320 Feet



VP28 - Union Valley Road at McMillan Ave

Distance: 3,370 Feet

PHOTO LOG

Figure B-15

Visual Resource Assessment  
Proposed Telecommunications Tower



VP29 - Lovell Street at Stephanie Lane

Distance: 2,980 Feet



VP30 - Heritage Hills at Stone View Court

Distance: 5,780 Feet

PHOTO LOG

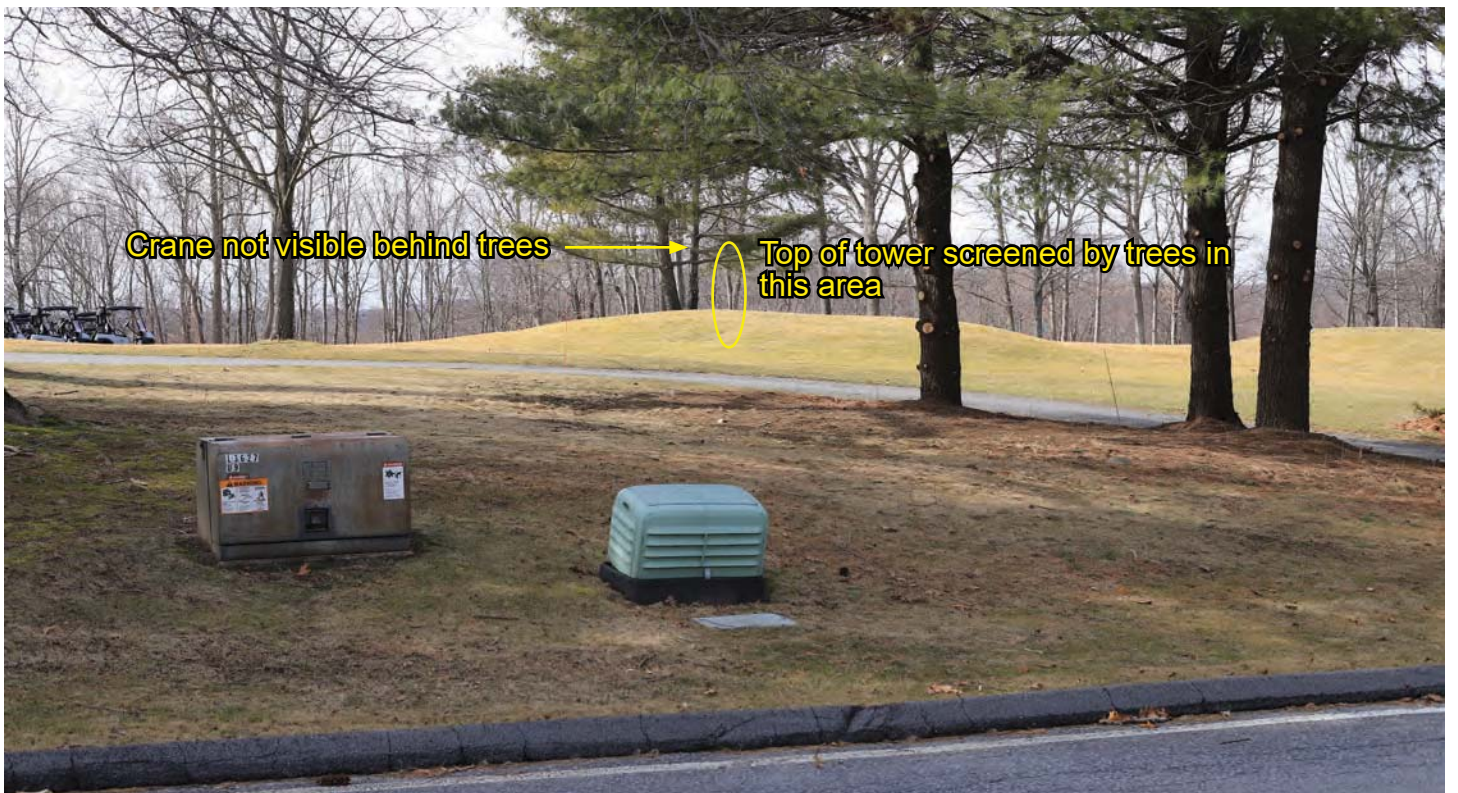
Figure B-16

Visual Resource Assessment  
Proposed Telecommunications Tower



VP31 - Heritage Hills at West Hill Drive

Distance: 6,910 Feet



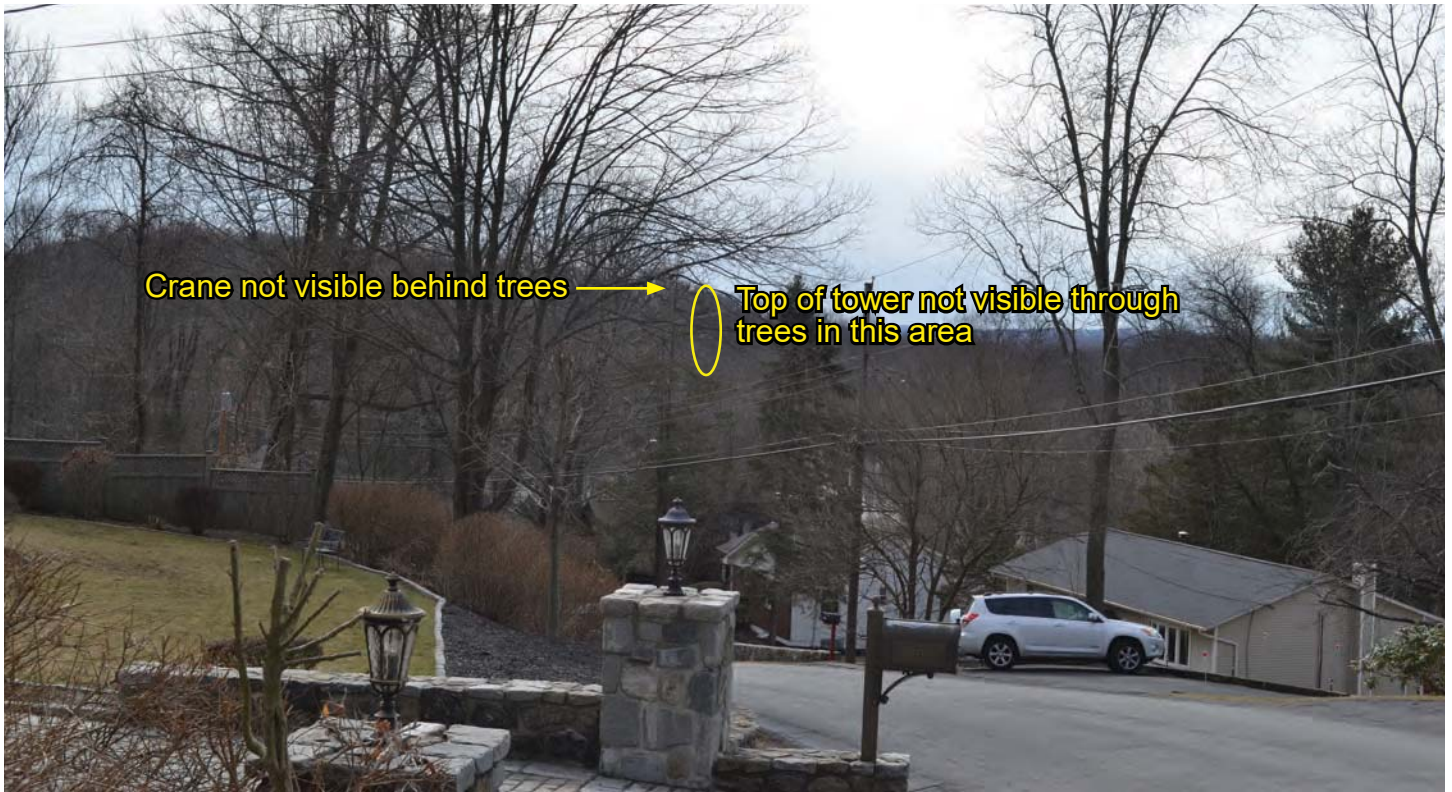
VP32 - Heritage Hills at Golf Course Clubhouse

Distance: 8,400 Feet

PHOTO LOG

Figure B-17

Visual Resource Assessment  
Proposed Telecommunications Tower



VP33 - Woodbine Drive near #66

Distance: 4,530 Feet



VP34 - Plum Road near #48

Distance: 3,350 Feet

PHOTO LOG

Figure B-18

Visual Resource Assessment  
Proposed Telecommunications Tower



VP35 - Putnam County Trailway near Astor Drive

Distance: 6,470 Feet



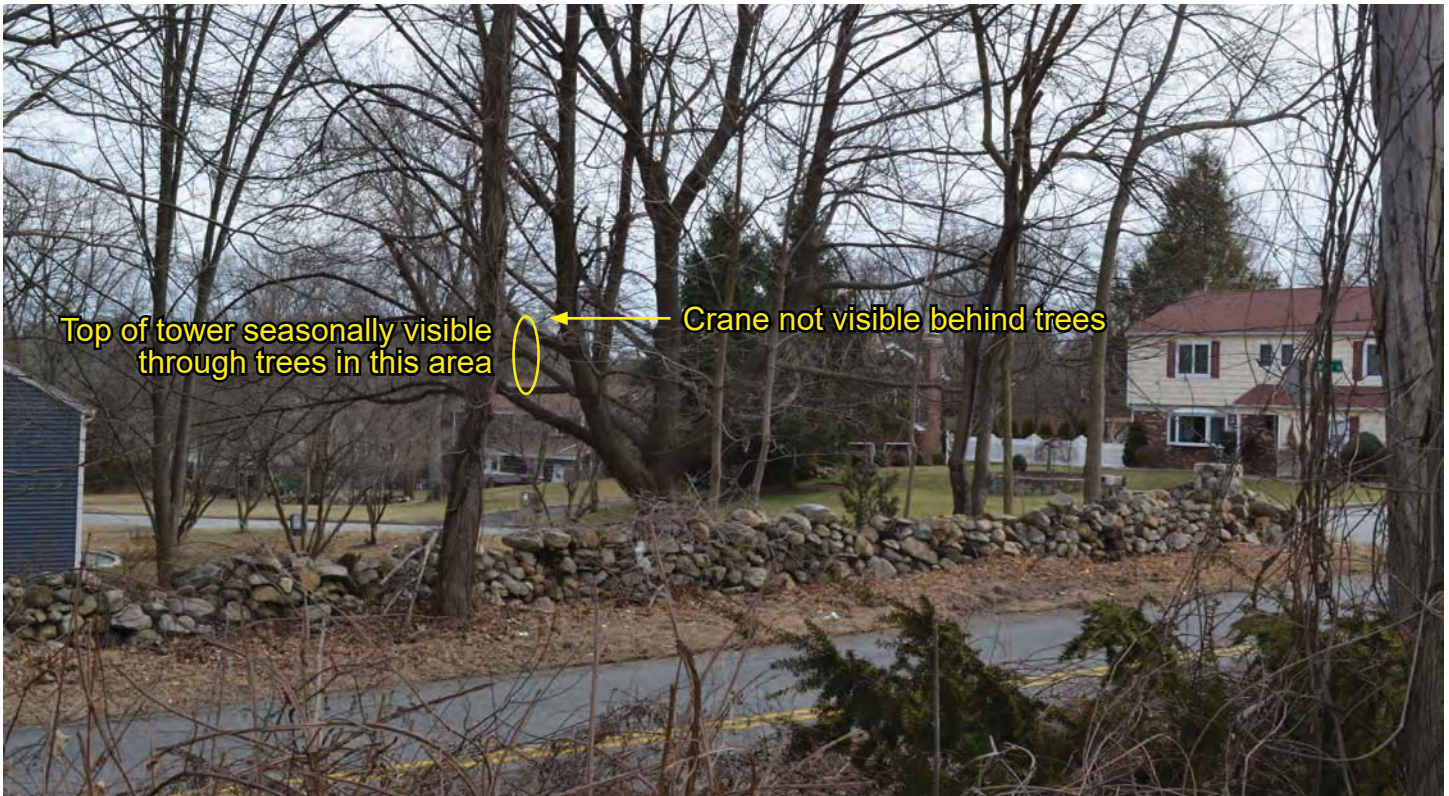
VP36 - NYS Route 6 near #395

Distance: 6,280 Feet

PHOTO LOG

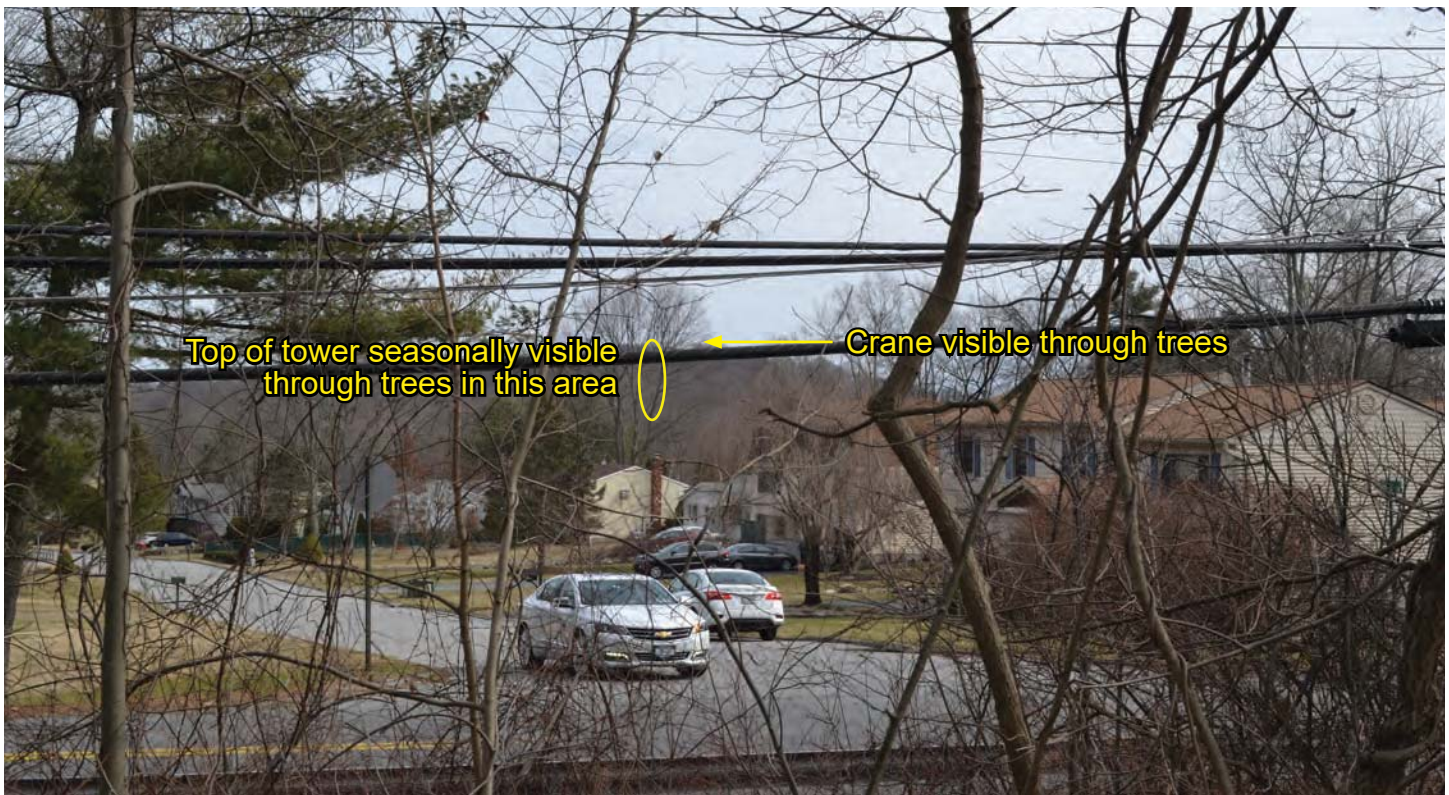
Figure B-19

Visual Resource Assessment  
**Proposed Telecommunications Tower**



VP37 - Putnam County Trailway near Bloomer Road

Distance: 5,540 Feet



VP38 - Putnam County Trailway near Horton Drive

Distance: 4,800 Feet

PHOTO LOG

Figure B-20

Visual Resource Assessment  
**Proposed Telecommunications Tower**

**SARATOGA**  
ASSOCIATES



Glenacom Lake Site (NY054)  
Walton Drive  
Mahopac, NY 10541





Top of tower not visible behind trees

Crane not visible behind trees

VP39 - NY Route 6 at Mahopac Village Center

Distance: 6,630 Feet

PHOTO LOG

Figure B-21

Visual Resource Assessment  
**Proposed Telecommunications Tower**

**SARATOGA**  
ASSOCIATES



Glenacom Lake Site (NY054)  
Walton Drive  
Mahopac, NY 10541

# APPENDIX C

## Photo Simulations



Existing Condition  
 VP2 - Acacia Drive at #23

SARATOGA  
 ASSOCIATES

Photograph Information

Date: February 20, 2020  
 Time: 12:36 pm  
 Focal Length: 50 mm  
 Camera: Canon EOS 6D MarkII

Photo Location: 41° 20' 45.4236" N  
 73° 44' 04.3584" W  
 Distance: 1,590 Feet

*This photograph was taken using a 50mm wide angle lens. To appear at the correct scale this page is intended to be viewed approximately 18 inches from the reader's eye when printed on 11"x17" paper.*

Figure 1a  
 Visual Resource Assessment  
**PROPOSED TELECOMMUNICATIONS TOWER**



Glenacom Lake (NY 054)  
 Walton Drive  
 Mahopac, NY 10541



← Top of Tower seasonally visible through trees

Simulated Condition - 140 ft Monopole Tower  
 VP2 - Acacia Drive at #23

SARATOGA  
 ASSOCIATES

Photograph Information  
 Date: February 20, 2020  
 Time: 12:36 pm  
 Focal Length: 50 mm  
 Camera: Canon EOS 6D MarkII

Photo Location: 41° 20' 45.4236" N  
 73° 44' 04.3584" W  
 Distance: 1,590 Feet

*This photograph was taken using a 50mm wide angle lens. To appear at the correct scale this page is intended to be viewed approximately 18 inches from the reader's eye when printed on 11"x17" paper.*

Figure 1b  
 Visual Resource Assessment  
**PROPOSED TELECOMMUNICATIONS TOWER**



Glenacom Lake (NY 054)  
 Walton Drive  
 Mahopac, NY 10541



Existing Condition  
 VP3 - Fassitt Drive near #61

SARATOGA  
 ASSOCIATES

Photograph Information  
 Date: February 20, 2020  
 Time: 1:20 pm  
 Focal Length: 50 mm  
 Camera: Canon EOS 6D MarkII

Photo Location: 41° 20' 51.4968" N  
 73° 44' 18.7908" W  
 Distance: 2,270 Feet

*This photograph was taken using a 50mm wide angle lens. To appear at the correct scale this page is intended to be viewed approximately 18 inches from the reader's eye when printed on 11"x17" paper.*

Figure 2a  
 Visual Resource Assessment  
**PROPOSED TELECOMMUNICATIONS TOWER**



Glenacom Lake (NY 054)  
 Walton Drive  
 Mahopac, NY 10541



Simulated Condition - 140 ft Monopole Tower  
 VP3 - Fassitt Drive near #61

SARATOGA  
 ASSOCIATES

Photograph Information  
 Date: February 20, 2020  
 Time: 1:20 pm  
 Focal Length: 50 mm  
 Camera: Canon EOS 6D MarkII

Photo Location: 41° 20' 51.4968" N  
 73° 44' 18.7908" W  
 Distance: 2,270 Feet

*This photograph was taken using a 50mm wide angle lens. To appear at the correct scale this page is intended to be viewed approximately 18 inches from the reader's eye when printed on 11"x17" paper.*

Figure 2b  
 Visual Resource Assessment  
**PROPOSED TELECOMMUNICATIONS TOWER**



Glenacom Lake (NY 054)  
 Walton Drive  
 Mahopac, NY 10541



Simulated Condition - 140 ft Monopole Tower - Brown Color Alternative  
 VP3 - Fassitt Drive near #61

SARATOGA  
 ASSOCIATES

Photograph Information  
 Date: February 20, 2020  
 Time: 1:20 pm  
 Focal Length: 50 mm  
 Camera: Canon EOS 6D MarkII

Photo Location: 41° 20' 51.4968" N  
 73° 44' 18.7908" W  
 Distance: 2,270 Feet

*This photograph was taken using a 50mm wide angle lens. To appear at the correct scale this page is intended to be viewed approximately 18 inches from the reader's eye when printed on 11"x17" paper.*

Figure 2c  
 Visual Resource Assessment  
**PROPOSED TELECOMMUNICATIONS TOWER**



Glenacom Lake (NY 054)  
 Walton Drive  
 Mahopac, NY 10541



Existing Condition  
 VP5 - Lake Glenacom Road near #23

SARATOGA  
 ASSOCIATES

Photograph Information  
 Date: February 20, 2020  
 Time: 1:16 pm  
 Focal Length: 50 mm  
 Camera: Canon EOS 6D MarkII

Photo Location: 41° 21' 06.4512" N  
 73° 44' 17.5920" W  
 Elevation: 2,320 Feet

This photograph was taken using a 50mm wide angle lens. To appear at the correct scale this page is intended to be viewed approximately 18 inches from the reader's eye when printed on 11"x17" paper.

Figure 3a  
 Visual Resource Assessment  
**PROPOSED TELECOMMUNICATIONS TOWER**



Glenacom Lake (NY 054)  
 Walton Drive  
 Mahopac, NY 10541





Simulated Condition - 140 ft Monopole Tower  
 VP5 - Lake Glenacom Road near #23

SARATOGA  
 ASSOCIATES

Photograph Information  
 Date: February 20, 2020  
 Time: 1:16 pm  
 Focal Length: 50 mm  
 Camera: Canon EOS 6D MarkII

Photo Location: 41° 21' 06.4512" N  
 73° 44' 17.5920" W  
 Elevation: 2,320 Feet

This photograph was taken using a 50mm wide angle lens. To appear at the correct scale this page is intended to be viewed approximately 18 inches from the reader's eye when printed on 11"x17" paper.

Figure 3b  
 Visual Resource Assessment  
**PROPOSED TELECOMMUNICATIONS TOWER**



Glenacom Lake (NY 054)  
 Walton Drive  
 Mahopac, NY 10541



Existing Condition  
 VP7 - Maple Drive near #66

SARATOGA  
 ASSOCIATES

Photograph Information  
 Date: February 20, 2020  
 Time: 1:07 pm  
 Focal Length: 50 mm  
 Camera: Canon EOS 6D MarkII

Photo Location: 41° 21' 07.5348" N  
 73° 44' 00.4632" W  
 Distance: 1,300 Feet

*This photograph was taken using a 50mm wide angle lens. To appear at the correct scale this page is intended to be viewed approximately 18 inches from the reader's eye when printed on 11"x17" paper.*

Figure 4a  
 Visual Resource Assessment  
**PROPOSED TELECOMMUNICATIONS TOWER**



Glenacom Lake (NY 054)  
 Walton Drive  
 Mahopac, NY 10541



← Top of Tower seasonally visible through trees

Simulated Condition - 140 ft Monopole Tower  
 VP7 - Maple Drive near #66

SARATOGA  
 ASSOCIATES

Photograph Information  
 Date: February 20, 2020  
 Time: 1:07 pm  
 Focal Length: 50 mm  
 Camera: Canon EOS 6D MarkII

Photo Location: 41° 21' 07.5348" N  
 73° 44' 00.4632" W  
 Distance: 1,300 Feet

*This photograph was taken using a 50mm wide angle lens. To appear at the correct scale this page is intended to be viewed approximately 18 inches from the reader's eye when printed on 11"x17" paper.*

Figure 4b  
 Visual Resource Assessment  
**PROPOSED TELECOMMUNICATIONS TOWER**



Glenacom Lake (NY 054)  
 Walton Drive  
 Mahopac, NY 10541



Existing Condition  
 VP12 - Walton Drive near #43

SARATOGA  
 ASSOCIATES

Photograph Information  
 Date: February 20, 2020  
 Time: 11:34 am  
 Focal Length: 50 mm  
 Camera: Canon EOS 6D MarkII

Photo Location: 41° 21' 00.1368" N  
 73° 43' 44.7060" W  
 Distance: 510 Feet

*This photograph was taken using a 50mm wide angle lens. To appear at the correct scale this page is intended to be viewed approximately 18 inches from the reader's eye when printed on 11"x17" paper.*

Figure 5a  
 Visual Resource Assessment  
**PROPOSED TELECOMMUNICATIONS TOWER**



Glenacom Lake (NY 054)  
 Walton Drive  
 Mahopac, NY 10541



Simulated Condition - 140 ft Monopole Tower  
 VP12 - Walton Drive near #43

SARATOGA  
 ASSOCIATES

|               |                     |                 |                    |
|---------------|---------------------|-----------------|--------------------|
| Date:         | February 20, 2020   | Photo Location: | 41° 21' 00.1368" N |
| Time:         | 11:34 am            |                 | 73° 43' 44.7060" W |
| Focal Length: | 50 mm               | Distance:       | 510 Feet           |
| Camera:       | Canon EOS 6D MarkII |                 |                    |

*This photograph was taken using a 50mm wide angle lens. To appear at the correct scale this page is intended to be viewed approximately 18 inches from the reader's eye when printed on 11"x17" paper.*

Figure 5b  
 Visual Resource Assessment  
**PROPOSED TELECOMMUNICATIONS TOWER**



Glenacom Lake (NY 054)  
 Walton Drive  
 Mahopac, NY 10541



Existing Condition  
 VP13 - Mountainview Drive at #31

SARATOGA  
 ASSOCIATES

Photograph Information

Date: February 20, 2020  
 Time: 11:48 am  
 Focal Length: 50 mm  
 Camera: Canon EOS 6D MarkII

Photo Location: 41° 21' 02.1096" N  
 73° 43' 38.6256" W  
 Distance: 1,010 Feet

*This photograph was taken using a 50mm wide angle lens. To appear at the correct scale this page is intended to be viewed approximately 18 inches from the reader's eye when printed on 11"x17" paper.*

Figure 6a  
 Visual Resource Assessment  
**PROPOSED TELECOMMUNICATIONS TOWER**



Glenacom Lake (NY 054)  
 Walton Drive  
 Mahopac, NY 10541



Simulated Condition - 140 ft Monopole Tower  
 VP13 - Mountainview Drive at #31

SARATOGA  
 ASSOCIATES

Photograph Information

Date: February 20, 2020  
 Time: 11:48 am  
 Focal Length: 50 mm  
 Camera: Canon EOS 6D MarkII

Photo Location: 41° 21' 02.1096" N  
 73° 43' 38.6256" W  
 Distance: 1,010 Feet

*This photograph was taken using a 50mm wide angle lens. To appear at the correct scale this page is intended to be viewed approximately 18 inches from the reader's eye when printed on 11"x17" paper.*

Figure 6b  
 Visual Resource Assessment  
**PROPOSED TELECOMMUNICATIONS TOWER**



Glenacom Lake (NY 054)  
 Walton Drive  
 Mahopac, NY 10541



Existing Condition  
 VP14 - Summit Circle Drive at cul-de-sac

SARATOGA  
 ASSOCIATES

|                        |                     |                    |          |
|------------------------|---------------------|--------------------|----------|
| Photograph Information |                     | Photo Location:    |          |
| Date:                  | February 20, 2020   | 41° 20' 55.4136" N |          |
| Time:                  | 11:42 am            | 73° 43' 43.3488" W |          |
| Focal Length:          | 50 mm               | Distance:          | 520 Feet |
| Camera:                | Canon EOS 6D MarkII |                    |          |

*This photograph was taken using a 50mm wide angle lens. To appear at the correct scale this page is intended to be viewed approximately 18 inches from the reader's eye when printed on 11"x17" paper.*

Figure 7a  
 Visual Resource Assessment  
**PROPOSED TELECOMMUNICATIONS TOWER**



Glenacom Lake (NY 054)  
 Walton Drive  
 Mahopac, NY 10541





Simulated Condition - 140 ft Monopole Tower  
 VP14 - Summit Circle Drive at cul-de-sac

SARATOGA  
 ASSOCIATES

| Photograph Information |                     | Photo Location:    |          |
|------------------------|---------------------|--------------------|----------|
| Date:                  | February 20, 2020   | 41° 20' 55.4136" N |          |
| Time:                  | 11:42 am            | 73° 43' 43.3488" W |          |
| Focal Length:          | 50 mm               | Distance:          | 520 Feet |
| Camera:                | Canon EOS 6D MarkII |                    |          |

*This photograph was taken using a 50mm wide angle lens. To appear at the correct scale this page is intended to be viewed approximately 18 inches from the reader's eye when printed on 11"x17" paper.*

Figure 7b  
 Visual Resource Assessment  
**PROPOSED TELECOMMUNICATIONS TOWER**



Glenacom Lake (NY 054)  
 Walton Drive  
 Mahopac, NY 10541



Simulated Condition - 140 ft Monopole Tower - Brown Color Alternative  
 VP14 - Summit Circle Drive at cul-de-sac

SARATOGA  
 ASSOCIATES

| Photograph Information |                     | Photo Location:    |          |
|------------------------|---------------------|--------------------|----------|
| Date:                  | February 20, 2020   | 41° 20' 55.4136" N |          |
| Time:                  | 11:42 am            | 73° 43' 43.3488" W |          |
| Focal Length:          | 50 mm               | Distance:          | 520 Feet |
| Camera:                | Canon EOS 6D MarkII |                    |          |

*This photograph was taken using a 50mm wide angle lens. To appear at the correct scale this page is intended to be viewed approximately 18 inches from the reader's eye when printed on 11"x17" paper.*

Figure 7c  
 Visual Resource Assessment  
**PROPOSED TELECOMMUNICATIONS TOWER**



Glenacom Lake (NY 054)  
 Walton Drive  
 Mahopac, NY 10541



Existing Condition  
 VP17 - Olive Drive at Evergreen Drive

SARATOGA  
 ASSOCIATES

Photograph Information  
 Date: February 20, 2020  
 Time: 12:50 pm  
 Focal Length: 50 mm  
 Camera: Canon EOS 6D MarkII

Photo Location: 41° 20' 38.0436" N  
 73° 43' 50.0556" W  
 Distance: 1,910 Feet

*This photograph was taken using a 50mm wide angle lens. To appear at the correct scale this page is intended to be viewed approximately 18 inches from the reader's eye when printed on 11"x17" paper.*

Figure 8a  
 Visual Resource Assessment  
**PROPOSED TELECOMMUNICATIONS TOWER**



Glenacom Lake (NY 054)  
 Walton Drive  
 Mahopac, NY 10541



← Top of Tower seasonally visible through trees

Simulated Condition - 140 ft Monopole Tower  
 VP17 - Olive Drive at Evergreen Drive

SARATOGA  
 ASSOCIATES

Photograph Information

Date: February 20, 2020  
 Time: 12:50 pm  
 Focal Length: 50 mm  
 Camera: Canon EOS 6D MarkII

Photo Location: 41° 20' 38.0436" N  
 73° 43' 50.0556" W  
 Distance: 1,910 Feet

*This photograph was taken using a 50mm wide angle lens. To appear at the correct scale this page is intended to be viewed approximately 18 inches from the reader's eye when printed on 11"x17" paper.*

Figure 8b  
 Visual Resource Assessment  
**PROPOSED TELECOMMUNICATIONS TOWER**



Glenacom Lake (NY 054)  
 Walton Drive  
 Mahopac, NY 10541



Existing Condition  
 VP27 - Teakettle Lake Park

SARATOGA  
 ASSOCIATES

Photograph Information

Date: February 20, 2020  
 Time: 12:57 pm  
 Focal Length: 50 mm  
 Camera: Canon EOS 6D MarkII

Photo Location: 41° 21' 19.3680" N  
 73° 43' 43.3236" W  
 Distance: 2,323 Feet

*This photograph was taken using a 50mm wide angle lens. To appear at the correct scale this page is intended to be viewed approximately 18 inches from the reader's eye when printed on 11"x17" paper.*

Figure 9a  
 Visual Resource Assessment  
**PROPOSED TELECOMMUNICATIONS TOWER**



Glenacom Lake (NY 054)  
 Walton Drive  
 Mahopac, NY 10541



← Top of Tower seasonally visible through trees

Simulated Condition - 140 ft Monopole Tower  
 VP27 - Teakettle Lake Park

| Photograph Information |                     |
|------------------------|---------------------|
| Date:                  | February 20, 2020   |
| Time:                  | 12:57 pm            |
| Focal Length:          | 50 mm               |
| Camera:                | Canon EOS 6D MarkII |

|                 |                                          |
|-----------------|------------------------------------------|
| Photo Location: | 41° 21' 19.3680" N<br>73° 43' 43.3236" W |
| Distance:       | 2,323 Feet                               |

This photograph was taken using a 50mm wide angle lens. To appear at the correct scale this page is intended to be viewed approximately 18 inches from the reader's eye when printed on 11"x17" paper.

Figure 9b  
 Visual Resource Assessment  
**PROPOSED TELECOMMUNICATIONS TOWER**



# United States Department of the Interior

FISH AND WILDLIFE SERVICE  
3817 Luker Road  
Cortland, New York 13045



December 13, 2019

Mr. Jason Stayer  
Biologist II  
EBI Consulting  
21 B Street  
Burlington, MA 01803

Dear Mr. Stayer:

This responds to your November 19, 2019, letter regarding a telecommunications facility known as “Glencoma Lake/NY054” proposed along Walton Drive, Hamlet of Mahopac, Putnam County, New York. As you are aware, Federal agencies, such as the Federal Communications Commission (FCC), have responsibilities under Section 7 of the Endangered Species Act (ESA) (87 Stat. 884, as amended; 16 U.S.C. 1531 *et seq.*) to consult with the U.S. Fish and Wildlife Service (Service) regarding projects that may affect federally listed species or designated critical habitat, and confer with the Service regarding projects that are likely to jeopardize federally proposed species or adversely modify proposed critical habitat. We understand that all FCC licensees, applicants, tower companies, and their representatives have been designated the FCC’s non-federal representative for the purposes of completing informal consultation pursuant to Section 7(a)(2) of the ESA.

We previously completed consultation on this project in a letter to Ms. Tiffany Skrobiszewski, EBI Consulting, dated May 14, 2018. However, since that time, we understand that the tower design has changed from an overall height of 160 feet to 150 feet, the fenced compound for associated support equipment has changed from 65 feet by 70 feet to 30 feet by 85 feet, the access road has changed from 190 feet long to 75 feet long, and the amount of tree clearing has changed from approximately 0.15 acre to 0.30 acre. No other changes are currently anticipated.

Therefore, on behalf of the FCC, EBI Consulting has determined that the proposed project “may affect, but is not likely to adversely affect,” the federally listed Indiana bat (*Myotis sodalis*; Endangered) given the description of the proposed tree removal, location, and conservation measures as described in the May 14, 2018, letter (*e.g.*, conducting tree removal between October 1 and March 31). The Service concurs with your determination.

EBI Consulting also determined the project “may affect” the federally listed northern long-eared bat (*Myotis septentrionalis*; Threatened). Given the project description and location (no known roosts within 150 feet or hibernacula within 0.25 mile) of the proposed project, any taking that

may occur incidental to the proposed project is not prohibited under the ESA Section 4(d) rule<sup>1</sup> for this species (50 CFR § 17.40(o)).

No further coordination or consultation under the ESA is required with the Service at this time. Should project plans change, or if additional information on listed or proposed species or critical habitat becomes available, this determination may be reconsidered. The most recent compilation of federally listed and proposed endangered and threatened species in New York is available for your information. Until the proposed project is complete, we recommend that you check our website regularly from the date of this letter to ensure that listed species presence/absence information for the proposed project is current.\*

Any additional information regarding the proposed project and its potential to impact listed species should be coordinated with both this office and with the New York State Department of Environmental Conservation.

Thank you for your time. If you require additional information or assistance please contact Noelle Rayman-Metcalf at 607-753-9334. Future correspondence with us on this project should reference project file 18I1709.

Sincerely,

A handwritten signature in blue ink that reads "David A. Stilwell". The signature is written in a cursive style with a large, stylized "S" at the end.

David A. Stilwell  
Field Supervisor

\*Additional information referred to above may be found on our website at:  
<http://www.fws.gov/northeast/nyfo/es/section7.htm>

cc: NYSDEC, New Paltz, NY (Env. Permits)

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<sup>1</sup> For more information about the 4(d) rule, please see:  
<http://www.fws.gov/midwest/endangered/mammals/nleb/pdf/FRnlebFinal4dRule14Jan2016.pdf>.





# United States Department of the Interior

FISH AND WILDLIFE SERVICE  
3817 Luker Road  
Cortland, New York 13045



May 14, 2018

Ms. Tiffany Skrobiszewski  
EBI Consulting  
21 B Street  
Burlington, MA 01803

Dear Ms. Skrobiszewski:

This responds to your May 3, 2018, letter regarding a telecommunications facility proposed along Walton Road, Hamlet of Mahopac, Putnam County, New York. As you are aware, Federal agencies, such as the Federal Communications Commission (FCC), have responsibilities under Section 7 of the Endangered Species Act (ESA) (87 Stat. 884, as amended; 16 U.S.C. 1531 *et seq.*) to consult with the U.S. Fish and Wildlife Service (Service) regarding projects that may affect federally listed species or designated critical habitat, and confer with the Service regarding projects that are likely to jeopardize federally proposed species or adversely modify proposed critical habitat. We understand that all FCC licensees, applicants, tower companies, and their representatives have been designated the FCC's non-federal representative for the purposes of completing informal consultation pursuant to Section 7(a)(2) of the ESA.

On behalf of the FCC, EBI Consulting determined that the proposed project "may affect, but is not likely to adversely affect," the federally listed Indiana bat (*Myotis sodalis*; Endangered). The Service concurs with your determination given the location (no known summer or winter habitat nearby), a small amount of trees (approximately 0.16 acre) containing potential suitable roosting habitat are proposed for removal, and the following conservation measures will be incorporated into the project area to avoid and minimize impacts to these bat species:

- Tree removal will occur between October 1 and March 31, when bats are in hibernation; and
- Bright orange construction fencing and/or flagging (or similar) will be used to demarcate trees to be protected compared with those to be cut prior to the initiation of any construction.

EBI Consulting also made a "may affect" determination for the federally listed northern long-eared bat (*Myotis septentrionalis*; Threatened). Given the project description and location (no known roosts within 150 feet or hibernacula within 0.25 mile) of the proposed project, any

taking that may occur incidental to the proposed project is not prohibited under the ESA Section 4(d) rule<sup>1</sup> for this species (50 CFR § 17.40(o)). However, *please note that due to the potential presence of Indiana bats within the project area, tree cutting will need to occur during the winter months, as described above.*

Should project plans change, or if additional information on listed or proposed species or critical habitat becomes available, this determination may be reconsidered. The most recent compilation of federally listed and proposed endangered and threatened species in New York is available for your information. Until the proposed project is complete, we recommend that you check our website regularly from the date of this letter to ensure that listed species presence/absence information for the proposed project is current.\*

Any additional information regarding the proposed project and its potential to impact listed species should be coordinated with both this office and with the New York State Department of Environmental Conservation.

Thank you for your time. If you require additional information or assistance please contact Noelle Rayman-Metcalf at 607-753-9334. Future correspondence with us on this project should reference project file 18TA1709.

Sincerely,

*Anned. Secord*

for David A. Stilwell  
Field Supervisor

\*Additional information referred to above may be found on our website at:  
<http://www.fws.gov/northeast/nyfo/es/section7.htm>

cc: NYSDEC, New Paltz, NY (Env. Permits)

---

<sup>1</sup> For more information about the 4(d) rule, please see:  
<http://www.fws.gov/midwest/endangered/mammals/nleb/pdf/FRnlebFinal4dRule14Jan2016.pdf>.

# NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Fish and Wildlife, New York Natural Heritage Program  
625 Broadway, Fifth Floor, Albany, NY 12233-4757  
P: (518) 402-8935 | F: (518) 402-8925  
www.dec.ny.gov

December 18, 2019

Jason Stayer  
EBI Consulting  
21 B Street  
Burlington, MA 01803

Re: Glencoma Lake / NY054 - proposed communications facility at Walton Drive, Mahopac  
(EBI Project No. 6119004380)  
County: Putnam Town/City: Carmel

Dear Jason Stayer:

In response to your recent request, we have reviewed the New York Natural Heritage Program database with respect to the above project.

We have no records of rare or state-listed animals or plants, or significant natural communities at the project site or in its immediate vicinity.

Within five miles of the project site is a documented winter hibernaculum of **Northern long-eared bat** (*Myotis septentrionalis*, state and federally listed as Threatened). These bats may travel five miles or more from documented locations. The main impact of concern for bats is the cutting or removal of potential roost trees. It appears that your Natural Resource Review for this project already assesses the potential presence of, and impacts on, this species. For an official review and comments on your assessment, and a determination about any permit considerations for your project, contact the Permits staff at the NYSDEC Region 3 Office at [dep.r3@dec.ny.gov](mailto:dep.r3@dec.ny.gov), (845) 256-3054.

For most sites, comprehensive field surveys have not been conducted. We cannot provide a definitive statement on the presence or absence of all rare or state-listed species or significant natural communities. Depending on the nature of the project and the conditions at the project site, further information from on-site surveys or other resources may be required to fully assess impacts on biological resources.

For information regarding other permits that may be required under state law for regulated areas or activities (e.g., regulated wetlands), please contact the NYS DEC Region 3 Office, Division of Environmental Permits, as listed above.

Sincerely,



Nicholas Conrad  
Information Resources Coordinator  
New York Natural Heritage Program

**OPINION LETTER**

December 31, 2019

Christine Vergati  
Homeland Towers, LLC  
9 Harmony Street, 2<sup>nd</sup> Floor  
Danbury, CT 06810



RE: **NY054 – Glencoma Lake, NY Airspace Analysis**  
**Latitude (NAD-83): 41° 20' 56.88" N**  
**Longitude (NAD-83): 73° 43' 49.94" W**  
**Ground Elevation: 741.0 ft AMSL**  
**Tower tip height: 140.0 ft AGL**  
**Overall height: 881.0 ft AMSL**

Dear Ms. Vergati,

Our airspace analysis results for the NY054 – Glencoma Lake, NY site are as follows:

1. **Filing an FAA Form 7460-1 is not required for the proposed tower height of 140.0 ft AGL (881.0 ft AMSL). The maximum allowable height for not filing an FAA Form 7460-1 is 200 ft.**
2. **FCC’s TOWAIR Determination indicates that this structure does not require registration. There are no airports within 8 kilometers (5 miles) of the coordinates you provided. The maximum allowable height is for not filing for an ASR is 200 ft AGL.**
3. The FAA Form 7460-1 for NY054 – Glencoma Lake, NY at 140.0 ft AGL was not filed as of January 1, 2020.
4. The proposed site is 10.897 nm West from the nearest public landing facility – DXR: Danbury Muni. At an overall height of 881.0 ft AMSL, it does not exceed FAR 77.9 (a) or FAR 77.9 (b) Notice Criteria for DXR airport. This airport has both Circling and Straight-In Instrument approach procedures. It does not exceed any glide slopes of DXR airport. DXR: Danbury Muni is an airport type landing facility and it is associated with the city of Danbury, CT.
5. The proposed site is not within any of the instrument approach procedures of DXR airport.
6. The nearest private landing facility is 96NY: Massaro, which is a heliport type landing facility not eligible for study under FAR Part 77 sub-Part C. It is 2.05 nm North from the proposed site.
7. The proposed 140.0 ft AGL tower would not adversely affect low altitude en route airways and/ or VFR routes in the area.
8. The nearest AM tower is WLNA, which is 10.05 mi (16174 meters) away bearing 253.78°. WLNA AM is operating a directional type antenna system. As noted per the FCC AM Tower Locator and per FCC regulation 13-115, Section 1.30002, the structure will not require a “Proof of Performance” measurement study before and after construction.
9. Marking and lighting are not required for the proposed tower height of 140.0 ft AGL.
10. All Wireless Applications Corp. analyses are based on the latest AIRSPACE, FAA Notice Criteria Tool and FCC TOWAIR programs.

If you have any questions, please do not hesitate to call.

Thank you.

Ronald W. Lageson, Jr.  
425-643-5000 (office)  
425-649-5675 (fax)





HOMELAND TOWERS

January 6, 2020

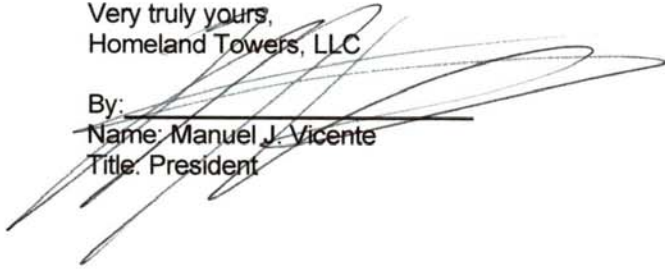
Honorable Chairman  
and Members of the Planning Board  
Town of Carmel Town Hall  
60 McAlpin Avenue  
Mahopac, New York 10541

Re: Site Plan and Special Permit Application for  
Walton Drive, Mahopac, New York  
**Co-location commitment letter**

Dear Hon. Chairman Gary and Members of the Planning Board:

As owner of the above referenced proposed tower and as required under §156-62(F)(1)(s) of the Town of Carmel Code, Homeland Towers, LLC ("Homeland Towers") hereby consents to allow additional antennas (for purposes of collocating) on any new antenna towers, if feasible.

Very truly yours,  
Homeland Towers, LLC

By:   
Name: Manuel J. Vicente  
Title: President



Dewberry Engineers Inc. | 973.739.9400  
600 Parsippany Road, Suite 301 | 973.739.9710 fax  
Parsippany, NJ 07054 | www.dewberry.com

January 21, 2020

Town of Carmel  
60 McAlpin Avenue,  
Mahopac, NY 10541

**Re: Site ID: NY054**  
**Location Name: Glencoma Lake**  
**Dewberry No.: 50114388**  
**Site Address: Walton Drive**  
**Mahopac, NY 10541**

To Whom It May Concern,

Homeland Towers, LLC is proposing the installation of a public utility wireless telecommunications facility, consisting of a 140' monopole ("Tower") with antennas mounted thereon.

The proposed Tower, all attachments, and the Tower's foundation will be designed to meet the ANSI/TIA-222-G "Structural Standard for Antenna Supporting Structures and Antennas", the New York State Uniform Fire Prevention and Building Code, and all county, state and federal structural requirements for loading, including wind and ice loads. The Tower will be designed to be able to support at least four (4) antenna arrays.

If you have any questions, please do not hesitate to call me at 973.739.9400.

Sincerely,  
Dewberry Engineers Inc.



Gregory Nawrotzki, PE  
NY Professional Engineer License No. 097512

# Stormwater Pollution Prevention Plan

**Project Name:** Glencoma Lake Cell Tower Compound

Walton Drive, Mahopac, NY 10541

Town of Carmel, Putnam County, New York

Block 1, Lot 90

October 2020



SUBMITTED BY:

**Dewberry Engineers Inc.**  
600 Parsippany Road, Suite 301  
Parsippany, NJ 07054-3715  
973.739.9400

Robert J. Foley, P.E.  
NY Lic. No. 088774

10/12/20

**Stormwater Pollution Prevention Plan**  
**Project Name: Glencoma Lake Cell Tower Compound**  
**Block 1, Lot 90**  
**Walton Drive, Mahopac, NY 10541**  
**Town of Carmel, Putnam County, New York**

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**Stormwater Pollution Prevention Plan**  
**Project Name: Glencoma Lake Cell Tower Compound**  
**Block 1, Lot 90**  
**Walton Drive, Mahopac, NY 10541**  
**Town of Carmel, Putnam County, New York**

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## **1.0 INTRODUCTION**

This Stormwater Pollution Prevention Plan (SWPPP) has been prepared for the activities associated with construction of the Glencoma Lake Cell Tower Compound located in the Town of Carmel, Putnam County, NY. Since the project is located in the "East of Hudson" watershed and the disturbance is between five thousand (5,000) square feet and one acre of land, coverage under the SPDES General Permit (GP-0-20-001) is required and erosion and sediment controls are required.

To obtain coverage under the general permit for this project, the following are required:

- Project review pursuant to the State Environmental Quality Review Act ("SEQRA") have been satisfied, when applicable.
- Where required, all necessary permits subject to the Uniform Procedures Act ("UPA") (see 6 NYCRR Part 621) have been obtained, unless otherwise notified by the Department pursuant to 6 NYCRR 621.3(a)(4).
- The final SWPPP has been prepared, and

- A complete NOI will be submitted to the NYSDEC in accordance with the requirements of this permit immediately upon approval by the delegated MS4 permittee.

### 1.1 Relevant Standards and Guidelines

The erosion and sediment control measures have been designed to minimize soil loss, retain eroded soil, and prevent it from reaching water bodies or adjoining properties. These measures have been designed and evaluated in accordance with the following standards and guidelines:

- New York State Department of Environmental Conservation, SPDES General Permit for Stormwater Discharges from Construction Activity, Permit No. GP-0-20-001, effective January 29, 2020, expiration date January 28, 2025;
- New York State Department of Environmental Conservation, Division of Water, New York State Standards and Specifications for Erosion and Sediment Control, November 2016;

### 1.2 Responsible Parties

There is a shared responsibility between the project owner and the owner's contractor to ensure that the intent and purpose of this Stormwater Pollution Prevention Plan (SWPPP) are implemented. While the size of the proposed disturbance does not trigger a weekly inspection requirement, it is recommended that a qualified SWPPP Inspector verify that the erosion and sediment controls remain functional during construction.

The responsible parties will ensure cooperation with the local enforcing authority. A copy of the updated, approved SWPPP will be kept at the project site throughout the duration of the construction.

The SWPPP Certification requires signatures from the Owner, Contractor, and SWPPP preparer. A copy of the contractors Department of Environmental Conservation (DEC) training shall also be provided.

### 1.3 Stormwater Management and Downstream Impacts

The Town of Carmel's chapter on Stormwater Management requires that sites meeting certain criteria to install post-construction stormwater management. Article X – Stormwater Control in the Town Code of Carmel, Section **156-81 – C** states:

Land development activities, as defined in § 156-80 of this article, meeting Condition One, Two or Three below shall also include water quantity and water quality controls (postconstruction stormwater runoff controls) as set forth in Subsection D below as applicable:

1. Condition One: stormwater runoff from land development activities discharging a pollutant of concern to either an impaired water identified on the Department's 303(d) list of

- impaired waters or a total maximum daily load (TMDL) designated watershed for which pollutants in stormwater have been identified as a source of the impairment.
2. Condition Two: stormwater runoff from land development activities disturbing five or more acres.
  3. Condition Three: stormwater runoff from land development activity disturbing between one and five acres of land during the course of the project, exclusive of the construction of single-family residences and construction activities at agricultural properties

Additionally, Table 1 of Appendix B in GP-0-20-001 lists, "All construction activities located in the watersheds identified in Appendix D that involve soil disturbances between five thousand (5,000) square feet and one (1) acre of land" to only include Erosion and Sediment Controls in the SWPPP (and not post-construction stormwater management).

The proposed activities of this project do not meet the criteria requiring postconstruction stormwater controls; therefore, none are proposed.

The proposed development will mimic existing drainage characteristics and stormwater will overland flow to the west through wooded areas to the Plum Brook (class C) which is part of the Plum River-Croton River sub-watershed (HUC12 020301010302). The Plum River-Croton-River is part of the Lower Hudson Watershed (HUC8 – 02030101). By implementing the temporary and permanent erosion and sediment control measures outlined in this document the proposed development will have no adverse impacts to any of the downstream areas.

## **2.0 SITE AND PROJECT DESCRIPTION**

### **2.1 Project Location**

The project is located within Block 1, Lot 90 of Mahopac (a hamlet) in the town of Carmel in Putnam County, New York. It is bound by Walton Drive to the east, a private residence to the north, and undeveloped wooded land to the south and west. The project site and the immediate surrounding area is shown on the USGS/Site Location Map (Figure 1), Street Map (Figure 2) and Tax Map (Figure 3). Per tax map number 87.5, lot 90 is 66.68 acres.

### **2.2 Existing Land use and Topography**

The existing site is undeveloped wooded land and is located at the southern end of Walton Drive which is a dead-end street.

The existing topography of the subject site is varied and in some areas relatively steep and graded slopes ranging from 15% to 50%. The site surface topography generally slopes down in a westerly direction, from Walton Drive towards the Plum Brook, approximately 1,450 LF to the west of the site.

The highest elevations are ±750 feet above sea level along the easterly side of the site, near Walton Drive. At the edge of this project's disturbance, the land elevation drops ±20 feet to

approximately  $\pm 730$  feet above sea level. Based on available mapping, this slope continues until it reaches the Plum Brook.

### 2.3 Proposed Project Description

The proposed improvements include clearing and grading the site in order to install a 2,550 SF fenced equipment compound with a new 140' monopole and associated cellular equipment.

### 2.4 Site Soil Conditions

Based on information provided in the United States Department of Agriculture Natural Resources Soil Conservation Service, Web Soil Survey of Putnam County, New York, the project area consists of, "CID - Charlton loam, very stony, 15 to 25% slopes." Soils surrounding the site range include "CIF – Charlton loam, very stony, 35-45% slopes" and "CIE – Charlton loam, very stony, 25-35% slopes"

According to the Web Soil Survey the 'CID' soils in this area have a Hydrologic Soil Group 'B'. The USDA Soil Information & Maps (Figure 4) is included in the Appendix.

### 2.5 Floodplains

Per FEMA Flood Insurance Rate Map 36079C0226E, the site is not located within the 100-year floodplain. Refer to Figure 5 for additional information.

### 2.6 Wetlands

Delineated Wetlands (by others) are located south of the proposed cell tower and are depicted on the SWPPP drawings. No disturbance is proposed within 100' of the of delineated area. The NYS DEC Environmental Resource Mapper indicates that there are state-regulated wetlands located approximately 1,200 LF west of the site. Refer to Figure 6 for additional information.

### 2.7 Site map and Construction Drawings

A Site Location Map included as Figure 1.

#### Construction Drawing Set

A full-size Stormwater Pollution Prevention Plan drawing set is incorporated as Appendix G (see drawing list below of 3 sheets – 22"x34"). The drawings include information on existing conditions, phasing of construction and earthwork, erosion and sediment control, site improvements, grading, and SWPPP details.

### **3.0 CONSTRUCTION PHASING AND SEQUENCE OF OPERATIONS**

#### **3.1 Pre-Construction Activities**

- Conduct pre-construction meeting.
- Identify contractor / subcontractor trained contractor responsible for implementation of the SWPPP and provide certification (see Appendix F for a copy of the certification).
- Identify on-site and downstream surface water bodies and install controls to protect them from sedimentation.
- Establish temporary stone construction entrance pad to capture mud and debris from the tires of construction vehicles.
- Install perimeter sediment controls such as silt fences, as shown on the project plans.
- Install temporary construction fencing as shown on the project plans or as directed by the site engineer.
- All earth disturbances during this phase should be limited to work necessary to install erosion and sedimentation controls.
- Owner's qualified inspector to inspect completed erosion and sediment control measures as required

#### **3.2 During Construction Activities**

- Stabilize soils with seed and mulch and plantings upon completion of work and at the end of each phase. The maximum time limit for any soil exposure shall be 7 days.
- Maintain soil erosion and sediment control measures throughout construction phase. Remove phased measures as appropriate at the end of phase.
- Completely stabilize with seed, mulch, plantings and other measures, or impervious cover.
- The applicant or developer or their representative shall be on site at all times when construction or grading activity takes place and shall inspect and document the effectiveness of all erosion and sediment control practices per NYS DEC requirements

Total Disturbance: 19,615 SF

#### **3.3 Post Construction Activities**

- Ensure that all surfaces are completely stabilized with seed and mulch or impervious cover. Do not leave any exposed soil.
- After site work is completed perform routine inspection and maintenance and insure proper vegetative cover is maintained at the site.
- Remove temporary erosion and sediment control measures.
- Submit Notice of Termination.

## 4.0 CONSTRUCTION PHASE EROSION AND SEDIMENT CONTROL

The SWPPP and accompanying plans identify and detail the proposed temporary erosion and sediment control practices to be utilized during construction. These measures will be implemented during construction to minimize soil erosion and control sediment transport off-site.

Temporary erosion and sediment control measures that shall be applied during construction generally include:

- Minimizing soil erosion and sedimentation by stabilization of disturbed areas and by removing sediment from construction-site discharges.
- Establishment of permanent vegetation following the completion of construction activities in any portion of the site.
- Site preparation activities shall be planned to minimize the area and duration of soil disruption.
- The maximum time limit for any soil exposure shall be 7 days.

The contractor will comply with all conditions of the SPDES GP-0-20-001, including the conditions related to maintaining the SWPPP and evidence of compliance with the SWPPP at the job site and allowing regulatory personnel access to the job site and to records in order to determine compliance. If during construction a method is not working, the contractor must make adjustments to prevent sediment-laden runoff or other pollutants from leaving construction site or entering waterbodies.

### 4.1 Temporary and Permanent Erosion and Sediment Control Measures

The temporary and permanent erosion and sediment control measures recommended and described in the following section are to be installed and/or implemented prior to the initiation of construction and during construction as required and as directed. SEE APPENDIX F FOR MORE INFORMATION ON NYDEC EROSION AND SEDIMENT CONTROL STANDARDS.

#### Stabilized Construction Entrance

Prior to construction, a stabilized construction entrance will be installed at points of entry and egress from the site to reduce the tracking of sediment onto public roadways. Construction traffic must enter and exit the site at the stabilized construction entrance. When necessary, the placement of additional aggregate atop the filter fabric will be done to assure the minimum thickness is maintained. All sediments and soils spilled, dropped, or washed onto the adjacent streets must be removed immediately. Periodic inspection and needed maintenance shall be provided after each substantial rainfall event.

#### Landgrading

Permanent reshaping of the existing land surface by grading in accordance with and engineering topographic plan and specification to provide for erosion control and vegetative

establishment on disturbed reshaped areas. This will take place on the subject property in preparation for the new building and site improvements. In order to level the site a large volume of soil will be placed as fill.

#### Mulching/Wood Mulch/Jute Mat Mulch

Use wood mulch outside of the growing season. Areas undergoing clearing or grading and any areas disturbed by construction activities where work has temporarily or permanently ceased will be stabilized with wood mulch within seven days from the date the soil disturbance activity ceased. The soil stabilization measures selected shall be in conformance with the New York State Standards and Specifications for Erosion and Sediment Control. During growing season other suitable mulch material may be used. On slopes, Jute Mat or anchored stabilization in combination with wood mulch shall be used. See pages 4.40 and 4.41 of Appendix G for more information.

#### Permanent Construction Area Planting

Establishment of permanent grasses and or shrubs to provide a minimum of 80% perennial vegetative cover on areas disturbed by construction. See Section 4.5 for Permanent stabilization planting.

#### Temporary Construction Area Seeding

Areas undergoing clearing or grading and any areas disturbed by construction activities where work has temporarily or permanently ceased will be stabilized with temporary vegetative cover within seven days from the date the soil disturbance activity ceased. The soil stabilization measures selected shall be in conformance with the New York State Standards and Specifications for Erosion and Sediment Control.

#### Topsoiling

Spreading a specified quality and quantity of topsoil material on grade or constructed subsoil areas to provide acceptable plant cover growing condition thereby reducing erosion to reduce irrigation water needs and to reduce the need for nitrogen fertilizer application.

#### Trees and Shrubs

Establishing trees and shrubs to protect the soil and plant resources improve an area to increase attractiveness and usefulness of areas.

#### Silt Fence

A temporary barrier of geotextile fabric installed on contours across a slope used to intercept sediment laden runoff from small drainage areas of disturbed soil. Prior to the initiation of and during construction activities, a geotextile filter fabric (silt fence) will be established along the down slope perimeter of areas to be disturbed. To facilitate effectiveness of the silt fence, daily inspections and inspections immediately after significant storm events will be performed by site personnel. Maintenance of the fence will be performed as needed. In specified areas a reinforced silt fence will be utilized.

## 4.2 General Considerations and Measures

### Steep Slope Stabilization

Proposed slopes are designed to not exceed a 2:1 slope ratio. At all times during and after earthmoving operations slopes will be maintained by a variety of measures including anchored stabilization blankets and jute matting.

### Temporary Soil Stockpile

Materials, such as topsoil, will be temporarily stockpiled (if necessary) on-site during construction. Stockpiles will be located in an area away from storm drainage, water bodies and/or courses, and will be properly protected from erosion by a surrounding silt fence.

## 4.3 Housekeeping Measures – Construction Material and Pollution & Spill Prevention

### Litter, Debris, Chemicals, Waste Material

Litter, construction debris, chemicals, waste material shall be prevented from exposure to stormwater and from becoming a pollutant source. A daily walkthrough of the project site by the trained contractor shall be conducted to identify exposure of potential pollutants to stormwater. Debris and waste material shall be properly covered and managed until removal from the project site is accomplished. All waste materials shall be disposed of properly in accordance with all applicable regulations.

The following good housekeeping and material management practices will be followed on site during the construction project to reduce the risk of spills or other accidental exposure of materials and substances to stormwater runoff.

- Materials will be brought on site in the minimum quantities required.
- Construction materials shall be stored in a stabilized area designated for contractor use.
- The contractor staging and storage area shall be located in an area that does not negatively impact stormwater quality and will be surrounded with silt fence.
- All materials stored on site will be stored in a neat, orderly manner in their appropriate containers, and if possible, under a roof or other enclosure.
- Products will be kept in their original containers with the original manufacturer's label.
- Substances will not be mixed with one another unless recommended by the manufacturer.
- Whenever possible, all of a product will be used up before disposal. Manufacturer's recommendations for proper use and disposal will be followed.
- The construction manager or his designee will inspect regularly to ensure proper use and disposal of materials on site.
- The contractor shall prohibit washing of tools, equipment, and machinery in or within 100 feet of any watercourse or wetland.

### Inventory for Pollution Prevention Plan

The materials and substances listed below are expected to be on-site during construction.



- Petroleum for fueling vehicles will be stored in above ground storage tanks. Tanks will either be steel with an enclosure capable of holding 110% of the storage tank volume or of a Con-Store, concrete encased type typically employed by NYSDOT. Hydraulic oil and other oils will be stored in their original containers. Concrete and asphalt will be stored in the original delivery trucks.
- Fertilizer may be stored on site in its original container for a short period of time prior to seeding. Original containers will be safely piled on pallets or similar devices to protect from moisture.
- Paints and other similar materials will be stored in their original containers and all empty containers will be disposed of in accordance with label directions.
- Portable sanitary facilities, which contain chemical disinfectants (deodorants) will be located on-site, with the disinfectants held in the tank of the toilet.

### Hazardous Products

These practices are used to reduce the risks associated with hazardous materials.

- Products will be kept in original containers unless they are not resealable.
- Original labels and material safety data sheets will be retained; they contain important product information.
- If surplus product must be disposed of, manufacturers' or local and State recommended methods for proper disposal will be followed.

### Spill Prevention

The following product specific practices will be followed on site.

#### **Petroleum Products:**

- Construction personnel should be made aware that emergency telephone numbers are located in this SWPPP.
- The contractor shall immediately contact NYSDEC in the event of a spill and shall take all appropriate steps to contain the spill, including construction of a dike around the spill and placing absorbent material over this spill.
- The contractor shall instruct personnel that spillage of fuels, oils, and similar chemicals must be avoided and will have arranged with a qualified spill remediation company to serve the site.
- Fuels, oils, and chemicals will be stored in appropriate and tightly capped containers. Containers shall not be disposed of on the project site.
- Fuels, oils, chemicals, material, equipment, and sanitary facilities will be stored/located away from trees and at least 100 feet from streams, wells, wet areas, and other environmentally sensitive sites.
- Dispose of chemical containers and surplus chemicals off the project site in accordance with label directions.
- Use tight connections and hoses with appropriate nozzles in all operations involving fuels, lubricating materials or chemicals.
- Use funnels when pouring fuels, lubricating materials or chemicals.

- Refueling and cleaning of construction equipment will take place in parking areas to provide rapid response to emergency situations.
- All on-site vehicles will be monitored for leaks and receive regular preventative maintenance to reduce the chance of leakage. Any vehicle leaking fuel or hydraulic fuel will be immediately scheduled for repairs and use will be discontinued until repairs are made.

**Fertilizers:**

- Fertilizer will be stored in its original containers on pallets with water resistant coverings.
- Proper delivery scheduling will minimize storage time.
- Any damaged containers will be repaired immediately upon discovery and any released fertilizer recovered to the fullest extent practicable.

**Paints:**

- All containers will be tightly sealed and stored when not required for use.
- Excess paint will not be discharged to the storm water system or wastewater system but will be properly disposed of according to manufacturers' instructions or State and local regulations.

**Concrete Trucks:**

- Concrete trucks will be allowed to wash out or discharge surplus concrete or drum wash water only at designated locations on site.

**Asphalt Trucks:**

- Asphalt trucks shall not discharge surplus asphalt on the site.

Spill Control Practices

In addition to the good housekeeping and material management practices discussed in the previous sections of this plan, the following practices will be followed for spill prevention and cleanup.

- The construction manager responsible for the day-to-day site operations will be the spill prevention and cleanup coordinator. The names of responsible spill personnel will be posted in the material storage area and in the onsite construction office or trailer.
- Manufacturers' recommended methods for spill cleanup will be clearly posted and site personnel will be made aware of the procedures and the location of the information and cleanup supplies. Any spill in excess or suspected to be in excess of two gallons will be reported to the NYSDEC Regional Spill Response Unit. Notification to the NYSDEC (1-800-457-7362) must be completed within two hours of the discovery of the spill.
- Materials and equipment necessary for spill cleanup will be kept in the material storage area onsite. Equipment and materials will include but not be limited to absorbent pads, brooms, dust pans, mops, rags, gloves, goggles, activated clay, sand, sawdust, and plastic and metal trash containers specifically for this purpose.

- All spills will be cleaned up immediately after discovery.
- The spill area will be kept well ventilated and personnel will wear appropriate protective clothing to prevent injury from contact with spilled substance.
- Spills of toxic or hazardous material will be reported to the appropriate State or local government agency, regardless of the size

#### 4.4 Maintenance Requirements

The following maintenance procedures shall be performed by the contractor as noted:

- The applicant or developer or their representative shall be on site at all times when construction or grading activity takes place and shall inspect and document the effectiveness of all erosion and sediment control practices
- Litter, construction debris and chemicals shall be prevented from exposure to stormwater and from becoming a pollutant source.
- The maximum time limit for any soil exposure shall be 7 days.
- All measures will be maintained in good working order; if repairs are found to be necessary, they will be initiated within 24 hours of report.
- Remove built-up sediment from silt fences when it has reached 1/3 of the aboveground height of the silt fence.
- Inspect silt fences for depth of sediment, tears or sags in the fabric, and to see if the fabric is securely attached to the posts. Inspect posts to ensure that they are firmly set in the ground. Replace deteriorated silt fences as soon as the condition is discovered.
- Inspect temporary and permanent seeding weekly during its period of establishment for bare spots and areas of insufficient germination or growth. Take remedial action to establish a stabilized surface in these areas, once identified.
- Accumulations of sediment that escape to off-site areas must be removed at intervals to minimize off-site impacts. Sediment accumulations in public streets shall be removed as soon as possible and before any anticipated rain event. Vehicle tire mud cleaning devices shall be maintained to ensure their proper operation.
- Spare erosion and sediment control barrier material and mulch shall be stocked on-site at all times.

#### 4.5 Permanent Stabilization (seeding)

Permanent Seeding shall be done in accordance with "Permanent Construction Area Planting" Section and Table 4.4 of the New York Department of Environmental Conservation Standards for Erosion and Sediment Control, (See Appendix F of this Volume)

- Upland seed mix shall be applied to all disturbed areas
- In areas to be seeded, the seed bed shall be prepared by discing to a depth of 4 inches.
- Seed shall be evenly spread either by hand or mechanical means at the specified rate.
- Immediately following seeding, seed shall be incorporated into the soil by tracking with a dozer.
- Permanent seeding shall occur in the spring or fall. The spring seeding window is from March 1 to May 15 and the fall seeding window is from August 15 to October 1.

- Permanent seeding application shall be applied at the rate of a minimum of 4.0 pounds total seed per 1000 square feet or approximately 175 pounds per acre. If hydroseeding will be the method of application, the seed rate should be increased by 25% hydro seed areas must still receive straw and tackifier.
- If construction is completed between May 16 and July 15 or between October 2 and February 1, temporary seeding shall be required. The temporary seeding shall then be followed by a permanent seeding in the subsequent spring/fall seeding window. temporary seeding shall be as directed by the engineer.
- A non-growing season stabilization cover shall be applied if construction is completed between July 16 and August 14 or February 2 and February 28. The cover shall consist of straw mulch applied at the rate of 4,000 lbs./acre. The mulch shall be bound in place with an approved binder.
- For permanent or temporary seeding, the seed mix shall be mulched at the rate of 4,000 lbs./acre of straw mulch. The mulch shall be bound in place with an approved binder.
- Approval of final grading by the Owner is required prior to permanent or temporary seeding.

#### 4.6 Final Stabilization

Final Stabilization is defined as all soil disturbance activities have ceased and a uniform, perennial vegetative cover with a density of eighty (80) percent over the entire pervious surface has been established; or other equivalent stabilization measures, such as permanent landscape mulches, rock rip-rap or washed/crushed stone have been applied on all disturbed areas that are not covered by permanent structures, concrete or pavement.

### 5.0 Post-Construction Requirements

The owner or operator shall ensure that the provisions of the SWPPP are implemented from the commencement of construction activity until all areas of disturbance have achieved final stabilization and the Notice of Termination ("NOT") has been submitted to the Department in accordance with Part V. of the permit. This includes any changes made to the SWPPP pursuant to Part III.A.4. of the permit.

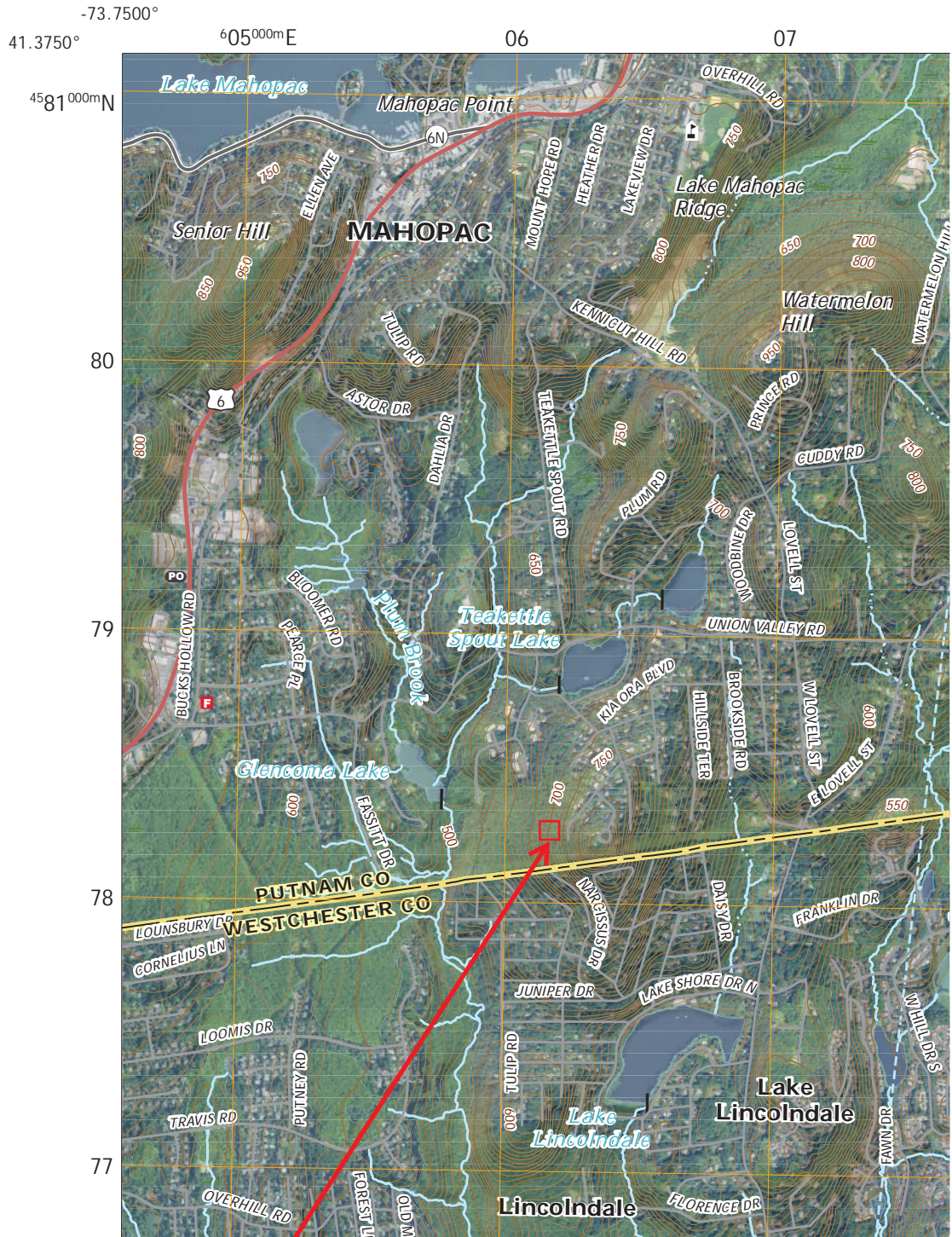
# Appendix A



[www.dewberry.com](http://www.dewberry.com)

# FIGURE 1: USGS/SITE LOCATION MAP



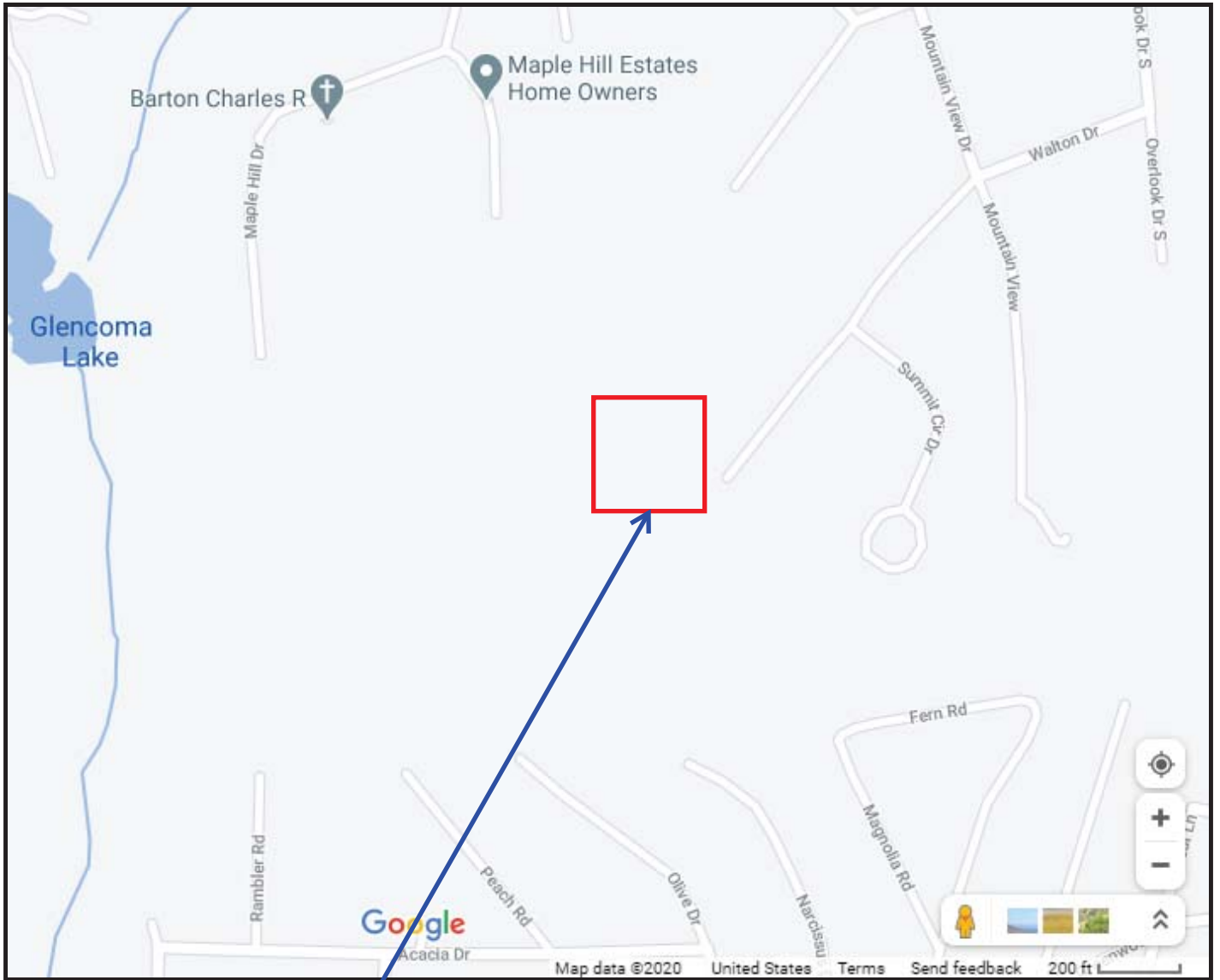


Approximate site location

## FIGURE 2: STREET MAP





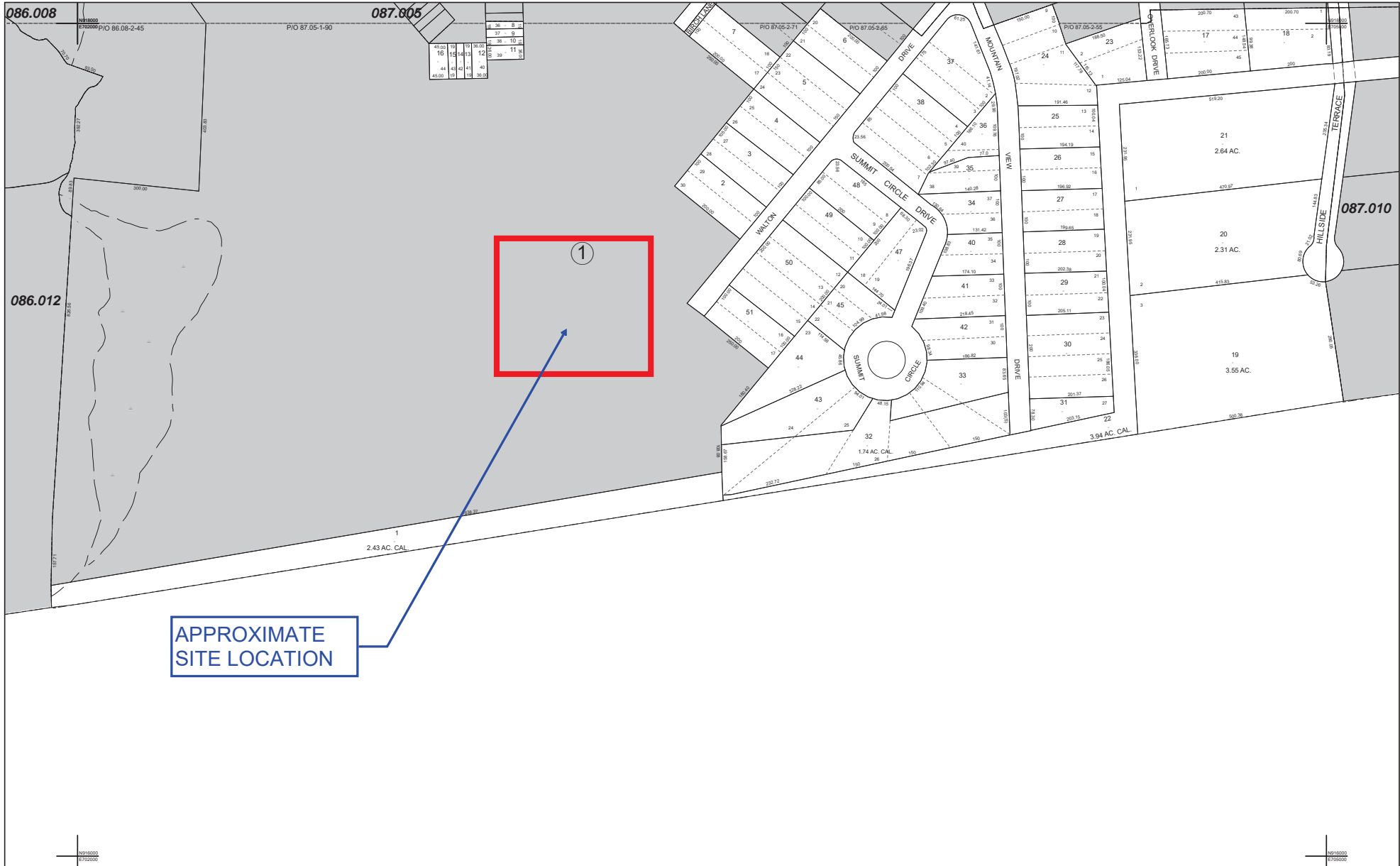


APPROXIMATE  
SITE LOCATION

## STREET MAP

# FIGURE 3: TAX MAP





APPROXIMATE  
SITE LOCATION

**SEWALL**  
FOR ASSESSMENT PURPOSES ONLY  
NOT TO BE USED FOR CONVEYANCES  
CONVERTED TO E861 GEODATABASE DIGITAL  
DATA FORMATTED BY WHEELER MAPING,  
A DIVISION OF JAMES W. SEWALL COMPANY  
JUNE 2004

| REVISIONS  |                  |
|------------|------------------|
| DATE       | DESCRIPTION      |
| 06/12/2000 | 01-1-450-861-045 |
| 02/01/2000 | 01-1-104-11-11   |

**Special Districts**  
MAHOPAC CENTRAL SCHOOL DISTRICT  
MAHOPAC FD

| LEGEND                  |               |
|-------------------------|---------------|
| STATE LINE              | —————         |
| COUNTY LINE             | - - - - -     |
| TOWN LINE               | - · - · -     |
| VILLAGE LINE            | - · - · -     |
| BLOCK LIMIT             | —————         |
| ORIGINAL LOT LINE       | ·····         |
| PROPERTY LINE           | —————         |
| DISPUTED AREA           | ·····         |
| CONTIGUOUS OWNERSHIP    | —————         |
| ROAD RIGHT              | —————         |
| STREAM WATER LINE       | —————         |
| SPECIAL DISTRICT LINE   | —————         |
| SCHOOL DISTRICT LINE    | —————         |
| PART OF PARCEL BOUNDARY | ·····         |
| WETLANDS LINE & SYMBOL  | —————         |
| DEVELOPER'S LOT NUMBER  | 5             |
| DEED DIMENSION          | 10000         |
| SCALED DIMENSION        | 10000         |
| CALCULATED AREA         | 2.34 AC. CAL. |
| VISUAL CENTERLINE       | —————         |
| PARCEL NUMBER           | 25            |

|       |       |       |
|-------|-------|-------|
| 86.08 | 87.05 | 87.06 |
| 86.12 | 87.10 |       |

**TOWN OF CARMEL**  
PUTNAM COUNTY, NEW YORK

REVISED THROUGH  
**FEBRUARY 28, 2020**

DATE AERIAL PHOTOGRAPHY... 4-10-87 MAP-2-17-89  
NY STATE PLANE COORD. = NAD83 IN FEET

87.9

## FIGURE 4: SOILS MAP



[www.dewberry.com](http://www.dewberry.com)

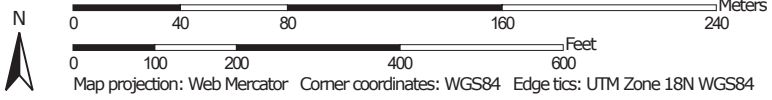
Soil Map—Putnam County, New York, and Westchester County, New York  
(Walton Drive)

Approximate site location




Soil Map may not be valid at this scale.

Map Scale: 1:2,820 if printed on A landscape (11" x 8.5") sheet.



## MAP LEGEND

### Area of Interest (AOI)

 Area of Interest (AOI)

### Soils

 Soil Map Unit Polygons

 Soil Map Unit Lines

 Soil Map Unit Points

### Special Point Features



Blowout



Borrow Pit



Clay Spot



Closed Depression



Gravel Pit



Gravelly Spot



Landfill



Lava Flow



Marsh or swamp



Mine or Quarry



Miscellaneous Water



Perennial Water



Rock Outcrop



Saline Spot



Sandy Spot



Severely Eroded Spot



Sinkhole



Slide or Slip



Sodic Spot



Spoil Area



Stony Spot



Very Stony Spot



Wet Spot



Other



Special Line Features

### Water Features



Streams and Canals

### Transportation



Rails



Interstate Highways



US Routes



Major Roads



Local Roads

### Background



Aerial Photography

## MAP LEGEND

## MAP INFORMATION

The soil surveys that comprise your AOI were mapped at scales ranging from 1:12,000 to 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service  
Web Soil Survey URL:  
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Putnam County, New York  
Survey Area Data: Version 17, Jun 11, 2020

Soil Survey Area: Westchester County, New York  
Survey Area Data: Version 16, Jun 11, 2020

Your area of interest (AOI) includes more than one soil survey area. These survey areas may have been mapped at different scales, with a different land use in mind, at different times, or at different levels of detail. This may result in map unit symbols, soil properties, and interpretations that do not completely agree across soil survey area boundaries.

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Dec 31, 2009—Oct 5, 2016

## MAP INFORMATION

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

## Map Unit Legend

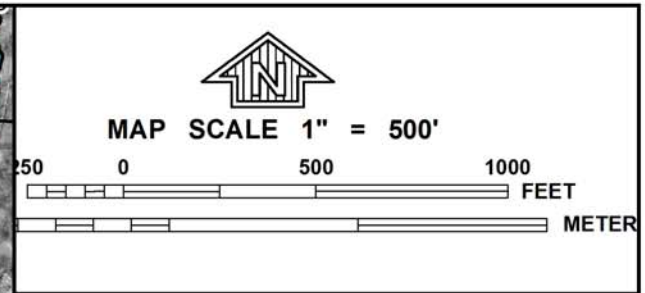
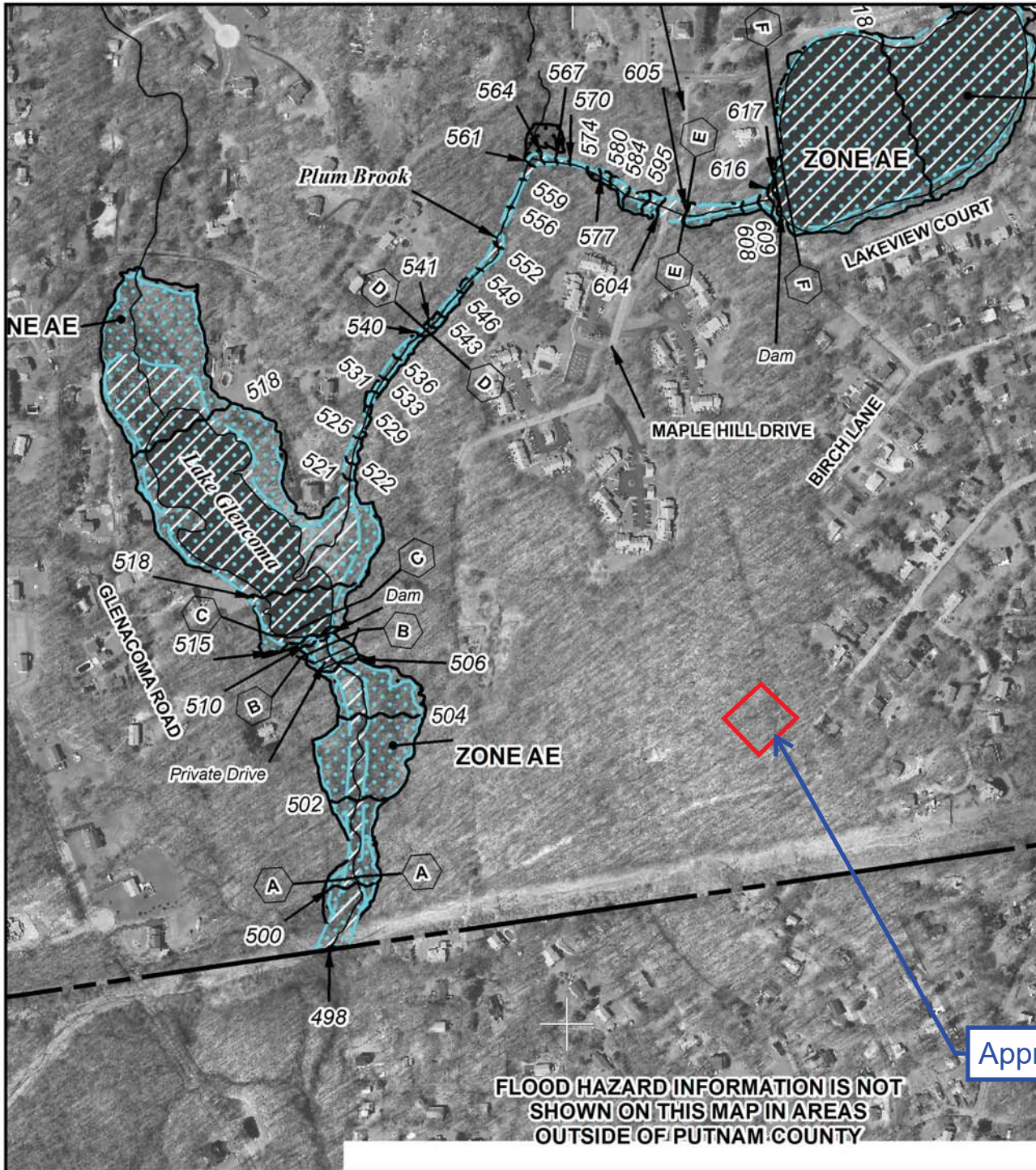
| Map Unit Symbol                       | Map Unit Name                                                   | Acres in AOI | Percent of AOI |
|---------------------------------------|-----------------------------------------------------------------|--------------|----------------|
| CIC                                   | Charlton fine sandy loam, 8 to 15 percent slopes, very stony    | 0.0          | 0.0%           |
| CID                                   | Charlton loam, 15 to 25 percent slopes, very stony              | 12.7         | 36.9%          |
| CIE                                   | Charlton loam, 25 to 35 percent slopes, very stony              | 4.8          | 13.8%          |
| CIF                                   | Charlton loam, 35 to 45 percent slopes, very stony              | 1.6          | 4.6%           |
| CrC                                   | Charlton-Chatfield complex, 0 to 15 percent slopes, very rocky  | 3.1          | 8.9%           |
| CsD                                   | Chatfield-Charlton complex, 15 to 35 percent slopes, very rocky | 8.6          | 25.0%          |
| CtC                                   | Chatfield-Hollis-Rock outcrop complex, 0 to 15 percent slopes   | 1.4          | 4.1%           |
| PoD                                   | Paxton fine sandy loam, 15 to 25 percent slopes, very stony     | 0.4          | 1.2%           |
| WdC                                   | Woodbridge loam, 8 to 15 percent slopes                         | 0.1          | 0.4%           |
| <b>Subtotals for Soil Survey Area</b> |                                                                 | <b>32.8</b>  | <b>95.0%</b>   |
| <b>Totals for Area of Interest</b>    |                                                                 | <b>34.5</b>  | <b>100.0%</b>  |

| Map Unit Symbol                       | Map Unit Name                                                   | Acres in AOI | Percent of AOI |
|---------------------------------------|-----------------------------------------------------------------|--------------|----------------|
| CIE                                   | Charlton loam, 25 to 35 percent slopes, very stony              | 0.2          | 0.7%           |
| CsD                                   | Chatfield-Charlton complex, 15 to 35 percent slopes, very rocky | 1.3          | 3.8%           |
| CtC                                   | Chatfield-Hollis-Rock outcrop complex, 0 to 15 percent slopes   | 0.1          | 0.4%           |
| <b>Subtotals for Soil Survey Area</b> |                                                                 | <b>1.7</b>   | <b>5.0%</b>    |
| <b>Totals for Area of Interest</b>    |                                                                 | <b>34.5</b>  | <b>100.0%</b>  |

## FIGURE 5: FEMA FLOODPLAIN MAP







NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0226E

**FIRM**  
**FLOOD INSURANCE RATE MAP**  
**PUTNAM COUNTY,**  
**NEW YORK**  
 (ALL JURISDICTIONS)

**PANEL 226 OF 256**  
 (SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

| COMMUNITY       | NUMBER | PANEL | SUFFIX |
|-----------------|--------|-------|--------|
| CARMEL, TOWN OF | 360669 | 0226  | E      |

Notice to User: The Map Number shown below should be used when placing map orders; the Community Number shown above should be used on insurance applications for the subject community.



**MAP NUMBER**  
**36079C0226E**

**EFFECTIVE DATE**  
**MARCH 4, 2013**

Federal Emergency Management Agency

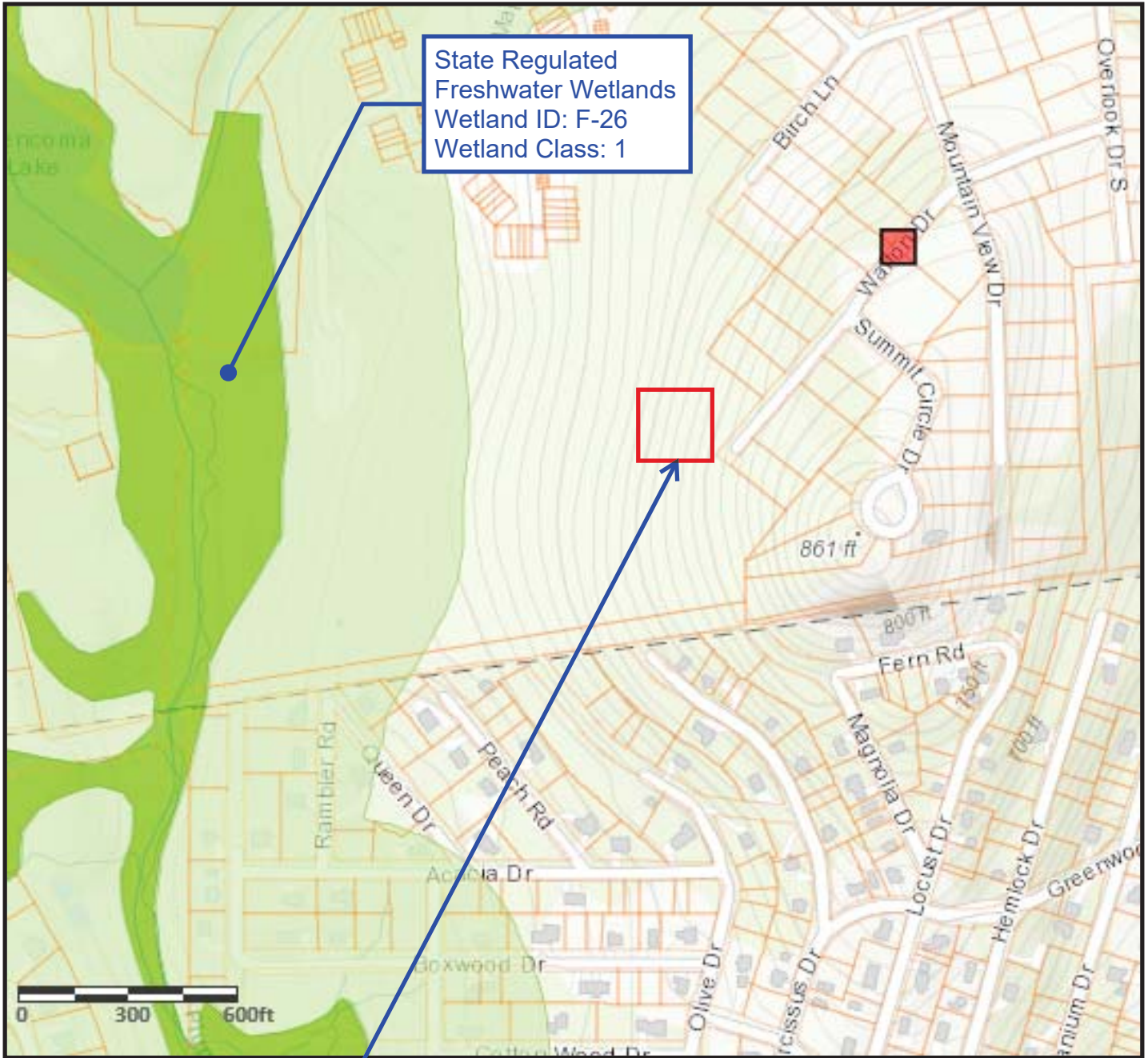
Approximate Site Location

**FLOOD HAZARD INFORMATION IS NOT SHOWN ON THIS MAP IN AREAS OUTSIDE OF PUTNAM COUNTY**

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at [www.msc.fema.gov](http://www.msc.fema.gov)

## FIGURE 6: NYS ERS MAP





State Regulated  
Freshwater Wetlands  
Wetland ID: F-26  
Wetland Class: 1

Approximate Site  
Location

# ERM MAP

Source: <https://gisservices.dec.ny.gov/gis/erm/>

# Appendix B

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**APPENDIX F**  
**CONSTRUCTION SITE INSPECTION**  
**AND MAINTENANCE LOG BOOK**

**STATE POLLUTANT DISCHARGE ELIMINATION SYSTEM FOR CONSTRUCTION**  
**ACTIVITIES**

**SAMPLE CONSTRUCTION SITE LOG BOOK**

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- I. Pre-Construction Meeting Documents
  - a. Preamble to Site Assessment and Inspections
  - b. Pre-Construction Site Assessment Checklist
  
- II. Construction Duration Inspections
  - a. Directions
  - b. Modification to the SWPPP

**I. PRE-CONSTRUCTION MEETING DOCUMENTS**

**Project Name** \_\_\_\_\_  
**Permit No.** \_\_\_\_\_ **Date of Authorization** \_\_\_\_\_  
**Name of Operator** \_\_\_\_\_  
**Prime Contractor** \_\_\_\_\_

**a. Preamble to Site Assessment and Inspections**

The Following Information To Be Read By All Person’s Involved in The Construction of Stormwater Related Activities:

The Operator agrees to have a qualified inspector<sup>1</sup> conduct an assessment of the site prior to the commencement of construction<sup>2</sup> and certify in this inspection report that the appropriate erosion and sediment controls described in the SWPPP have been adequately installed or implemented to ensure overall preparedness of the site for the commencement of construction.

Prior to the commencement of construction, the Operator shall certify in this site logbook that the SWPPP has been prepared in accordance with the State’s standards and meets all Federal, State and local erosion and sediment control requirements. A preconstruction meeting should be held to review all of the SWPPP requirements with construction personnel.

When construction starts, site inspections shall be conducted by the qualified inspector at least every 7 calendar days. The Operator shall maintain a record of all inspection reports in this site logbook. The site logbook shall be maintained on site and be made available to the permitting authorities upon request.

Prior to filing the Notice of Termination or the end of permit term, the Operator shall have a qualified inspector perform a final site inspection. The qualified inspector shall certify that the site has undergone final stabilization<sup>3</sup> using either vegetative or structural stabilization methods and that all temporary erosion and sediment controls (such as silt fencing) not needed for long-term erosion control have been removed. In addition, the Operator must identify and certify that all permanent structures described in the SWPPP have been constructed and provide the owner(s) with an operation and maintenance plan that ensures the structure(s) continuously functions as designed.

1 Refer to “Qualified Inspector” inspection requirements in the current SPDES General Permit for Stormwater Discharges from Construction Activity for complete list of inspection requirements.  
2 “Commencement of construction” means the initial removal of vegetation and disturbance of soils associated with clearing, grading or excavating activities or other construction activities.  
3 “Final stabilization” means that all soil-disturbing activities at the site have been completed and a uniform, perennial vegetative cover with a density of eighty (80) percent has been established or equivalent stabilization measures (such as the use of mulches or geotextiles) have been employed on all unpaved areas and areas not covered by permanent structures.

**b. Pre-construction Site Assessment Checklist**  
**(NOTE: Provide comments below as necessary)**

1. Notice of Intent, SWPPP, and Contractors Certification:

**Yes No NA**

- Has a Notice of Intent been filed with the NYS Department of Conservation?
- Is the SWPPP on-site? Where? \_\_\_\_\_
- Is the Plan current? What is the latest revision date? \_\_\_\_\_
- Is a copy of the NOI (with brief description) onsite? Where? \_\_\_\_\_
- Have all contractors involved with stormwater related activities signed a contractor's certification?

2. Resource Protection

**Yes No NA**

- Are construction limits clearly flagged or fenced?
- Important trees and associated rooting zones, on-site septic system absorption fields, existing vegetated areas suitable for filter strips, especially in perimeter areas, have been flagged for protection.
- Creek crossings installed prior to land-disturbing activity, including clearing and blasting.

3. Surface Water Protection

**Yes No NA**

- Clean stormwater runoff has been diverted from areas to be disturbed.
- Bodies of water located either on site or in the vicinity of the site have been identified and protected.
- Appropriate practices to protect on-site or downstream surface water are installed.
- Are clearing and grading operations divided into areas <5 acres?

4. Stabilized Construction Access

**Yes No NA**

- A temporary construction entrance to capture mud and debris from construction vehicles before they enter the public highway has been installed.
- Other access areas (entrances, construction routes, equipment parking areas) are stabilized immediately as work takes place with gravel or other cover.
- Sediment tracked onto public streets is removed or cleaned on a regular basis.

5. Sediment Controls

**Yes No NA**

- Silt fence material and installation comply with the standard drawing and specifications.
- Silt fences are installed at appropriate spacing intervals
- Sediment/detention basin was installed as first land disturbing activity.
- Sediment traps and barriers are installed.

6. Pollution Prevention for Waste and Hazardous Materials

**Yes No NA**

- The Operator or designated representative has been assigned to implement the spill prevention avoidance and response plan.
- The plan is contained in the SWPPP on page \_\_\_\_\_
- Appropriate materials to control spills are onsite. Where? \_\_\_\_\_

## II. CONSTRUCTION DURATION INSPECTIONS

### a. Directions:

**Inspection Forms will be filled out during the entire construction phase of the project.**

Required Elements:

- 1) On a site map, indicate the extent of all disturbed site areas and drainage pathways. Indicate site areas that are expected to undergo initial disturbance or significant site work within the next 14-day period;
- 2) Indicate on a site map all areas of the site that have undergone temporary or permanent stabilization;
- 3) Indicate all disturbed site areas that have not undergone active site work during the previous 14-day period;
- 4) Inspect all sediment control practices and record the approximate degree of sediment accumulation as a percentage of sediment storage volume (for example, 10 percent, 20 percent, 50 percent);
- 5) Inspect all erosion and sediment control practices and record all maintenance requirements such as verifying the integrity of barrier or diversion systems (earthen berms or silt fencing) and containment systems (sediment basins and sediment traps). Identify any evidence of rill or gully erosion occurring on slopes and any loss of stabilizing vegetation or seeding/mulching. Document any excessive deposition of sediment or ponding water along barrier or diversion systems. Record the depth of sediment within containment structures, any erosion near outlet and overflow structures, and verify the ability of rock filters around perforated riser pipes to pass water; and
- 6) Immediately report to the Operator any deficiencies that are identified with the implementation of the SWPPP.



**SITE PLAN/SKETCH**

\_\_\_\_\_  
**Inspector (print name)**

\_\_\_\_\_  
**Date of Inspection**

\_\_\_\_\_  
**Qualified Inspector (print name)**

\_\_\_\_\_  
**Qualified Inspector Signature**

The above signed acknowledges that, to the best of his/her knowledge, all information provided on the forms is accurate and complete.

# Appendix C

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Department of  
Environmental  
Conservation

NEW YORK STATE  
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SPDES GENERAL PERMIT  
FOR STORMWATER DISCHARGES

From

**CONSTRUCTION ACTIVITY**

Permit No. GP- 0-20-001

Issued Pursuant to Article 17, Titles 7, 8 and Article 70  
of the Environmental Conservation Law

Effective Date: January 29, 2020

Expiration Date: January 28, 2025

John J. Ferguson

Chief Permit Administrator



Authorized Signature

1-23-20

Date

Address: NYS DEC  
Division of Environmental Permits  
625 Broadway, 4th Floor  
Albany, N.Y. 12233-1750

## PREFACE

Pursuant to Section 402 of the Clean Water Act (“CWA”), stormwater *discharges* from certain *construction activities* are unlawful unless they are authorized by a *National Pollutant Discharge Elimination System (“NPDES”)* permit or by a state permit program. New York administers the approved State Pollutant Discharge Elimination System (SPDES) program with permits issued in accordance with the New York State Environmental Conservation Law (ECL) Article 17, Titles 7, 8 and Article 70.

An *owner or operator* of a *construction activity* that is eligible for coverage under this permit must obtain coverage prior to the *commencement of construction activity*. Activities that fit the definition of “*construction activity*”, as defined under 40 CFR 122.26(b)(14)(x), (15)(i), and (15)(ii), constitute construction of a *point source* and therefore, pursuant to ECL section 17-0505 and 17-0701, the *owner or operator* must have coverage under a SPDES permit prior to *commencing construction activity*. The *owner or operator* cannot wait until there is an actual *discharge* from the *construction site* to obtain permit coverage.

**\*Note: The italicized words/phrases within this permit are defined in Appendix A.**

**NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION  
SPDES GENERAL PERMIT FOR STORMWATER DISCHARGES FROM  
CONSTRUCTION ACTIVITIES**

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## Part 1. PERMIT COVERAGE AND LIMITATIONS

### A. Permit Application

This permit authorizes stormwater *discharges to surface waters of the State* from the following *construction activities* identified within 40 CFR Parts 122.26(b)(14)(x), 122.26(b)(15)(i) and 122.26(b)(15)(ii), provided all of the eligibility provisions of this permit are met:

1. *Construction activities* involving soil disturbances of one (1) or more acres; including disturbances of less than one acre that are part of a *larger common plan of development or sale* that will ultimately disturb one or more acres of land; excluding *routine maintenance activity* that is performed to maintain the original line and grade, hydraulic capacity or original purpose of a facility;
2. *Construction activities* involving soil disturbances of less than one (1) acre where the Department has determined that a *SPDES* permit is required for stormwater *discharges* based on the potential for contribution to a violation of a *water quality standard* or for significant contribution of *pollutants to surface waters of the State*.
3. *Construction activities* located in the watershed(s) identified in Appendix D that involve soil disturbances between five thousand (5,000) square feet and one (1) acre of land.

### B. Effluent Limitations Applicable to Discharges from Construction Activities

*Discharges* authorized by this permit must achieve, at a minimum, the effluent limitations in Part I.B.1. (a) – (f) of this permit. These limitations represent the degree of effluent reduction attainable by the application of best practicable technology currently available.

1. Erosion and Sediment Control Requirements - The *owner or operator* must select, design, install, implement and maintain control measures to *minimize the discharge of pollutants* and prevent a violation of the *water quality standards*. The selection, design, installation, implementation, and maintenance of these control measures must meet the non-numeric effluent limitations in Part I.B.1.(a) – (f) of this permit and be in accordance with the New York State Standards and Specifications for Erosion and Sediment Control, dated November 2016, using sound engineering judgment. Where control measures are not designed in conformance with the design criteria included in the technical standard, the *owner or operator* must include in the *Stormwater Pollution Prevention Plan* (“SWPPP”) the reason(s) for the

deviation or alternative design and provide information which demonstrates that the deviation or alternative design is *equivalent* to the technical standard.

- a. **Erosion and Sediment Controls.** Design, install and maintain effective erosion and sediment controls to *minimize* the *discharge* of *pollutants* and prevent a violation of the *water quality standards*. At a minimum, such controls must be designed, installed and maintained to:
- (i) *Minimize* soil erosion through application of runoff control and soil stabilization control measure to *minimize pollutant discharges*;
  - (ii) Control stormwater *discharges*, including both peak flowrates and total stormwater volume, to *minimize* channel and *streambank* erosion and scour in the immediate vicinity of the *discharge* points;
  - (iii) *Minimize* the amount of soil exposed during *construction activity*;
  - (iv) *Minimize* the disturbance of *steep slopes*;
  - (v) *Minimize* sediment *discharges* from the site;
  - (vi) Provide and maintain *natural buffers* around surface waters, direct stormwater to vegetated areas and maximize stormwater infiltration to reduce *pollutant discharges*, unless *infeasible*;
  - (vii) *Minimize* soil compaction. Minimizing soil compaction is not required where the intended function of a specific area of the site dictates that it be compacted;
  - (viii) Unless *infeasible*, preserve a sufficient amount of topsoil to complete soil restoration and establish a uniform, dense vegetative cover; and
  - (ix) *Minimize* dust. On areas of exposed soil, *minimize* dust through the appropriate application of water or other dust suppression techniques to control the generation of pollutants that could be discharged from the site.
- b. **Soil Stabilization.** In areas where soil disturbance activity has temporarily or permanently ceased, the application of soil stabilization measures must be initiated by the end of the next business day and completed within fourteen (14) days from the date the current soil disturbance activity ceased. For construction sites that *directly discharge* to one of the 303(d) segments



listed in Appendix E or is located in one of the watersheds listed in Appendix C, the application of soil stabilization measures must be initiated by the end of the next business day and completed within seven (7) days from the date the current soil disturbance activity ceased. See Appendix A for definition of *Temporarily Ceased*.

- c. **Dewatering.** *Discharges* from *dewatering* activities, including *discharges* from *dewatering* of trenches and excavations, must be managed by appropriate control measures.
  
- d. **Pollution Prevention Measures.** Design, install, implement, and maintain effective pollution prevention measures to *minimize* the *discharge* of *pollutants* and prevent a violation of the *water quality standards*. At a minimum, such measures must be designed, installed, implemented and maintained to:
  - (i) *Minimize* the *discharge* of *pollutants* from equipment and vehicle washing, wheel wash water, and other wash waters. This applies to washing operations that use clean water only. Soaps, detergents and solvents cannot be used;
  
  - (ii) *Minimize* the exposure of building materials, building products, construction wastes, trash, landscape materials, fertilizers, pesticides, herbicides, detergents, sanitary waste, hazardous and toxic waste, and other materials present on the site to precipitation and to stormwater. Minimization of exposure is not required in cases where the exposure to precipitation and to stormwater will not result in a *discharge* of *pollutants*, or where exposure of a specific material or product poses little risk of stormwater contamination (such as final products and materials intended for outdoor use) ; and
  
  - (iii) Prevent the *discharge* of *pollutants* from spills and leaks and implement chemical spill and leak prevention and response procedures.
  
- e. **Prohibited *Discharges*.** The following *discharges* are prohibited:
  - (i) Wastewater from washout of concrete;
  
  - (ii) Wastewater from washout and cleanout of stucco, paint, form release oils, curing compounds and other construction materials;

- (iii) Fuels, oils, or other *pollutants* used in vehicle and equipment operation and maintenance;
  - (iv) Soaps or solvents used in vehicle and equipment washing; and
  - (v) Toxic or hazardous substances from a spill or other release.
- f. Surface Outlets. When discharging from basins and impoundments, the outlets shall be designed, constructed and maintained in such a manner that sediment does not leave the basin or impoundment and that erosion at or below the outlet does not occur.

### **C. Post-construction Stormwater Management Practice Requirements**

1. The *owner or operator* of a *construction activity* that requires post-construction stormwater management practices pursuant to Part III.C. of this permit must select, design, install, and maintain the practices to meet the *performance criteria* in the New York State Stormwater Management Design Manual (“Design Manual”), dated January 2015, using sound engineering judgment. Where post-construction stormwater management practices (“SMPs”) are not designed in conformance with the *performance criteria* in the Design Manual, the *owner or operator* must include in the SWPPP the reason(s) for the deviation or alternative design and provide information which demonstrates that the deviation or alternative design is *equivalent* to the technical standard.
2. The *owner or operator* of a *construction activity* that requires post-construction stormwater management practices pursuant to Part III.C. of this permit must design the practices to meet the applicable *sizing criteria* in Part I.C.2.a., b., c. or d. of this permit.

#### **a. Sizing Criteria for New Development**

- (i) Runoff Reduction Volume (“RRv”): Reduce the total Water Quality Volume (“WQv”) by application of RR techniques and standard SMPs with RRv capacity. The total WQv shall be calculated in accordance with the criteria in Section 4.2 of the Design Manual.
- (ii) Minimum RRv and Treatment of Remaining Total WQv: Construction activities that cannot meet the criteria in Part I.C.2.a.(i) of this permit due to site limitations shall direct runoff from all newly constructed impervious areas to a RR technique or standard SMP with RRv capacity unless infeasible. The specific site limitations that prevent the reduction of 100% of the WQv shall be documented in the SWPPP.

For each impervious area that is not directed to a RR technique or standard SMP with RRv capacity, the SWPPP must include documentation which demonstrates that all options were considered and for each option explains why it is considered infeasible.

**In no case shall the runoff reduction achieved from the newly constructed impervious areas be less than the Minimum RRv as calculated using the criteria in Section 4.3 of the Design Manual.**

The remaining portion of the total WQv that cannot be reduced shall be treated by application of standard SMPs.

- (iii) Channel Protection Volume (“Cpv”): Provide 24 hour extended detention of the post-developed 1-year, 24-hour storm event; remaining after runoff reduction. The Cpv requirement does not apply when:
  - (1) Reduction of the entire Cpv is achieved by application of runoff reduction techniques or infiltration systems, or
  - (2) The site discharges directly to tidal waters, or fifth order or larger streams.
  
- (iv) *Overbank* Flood Control Criteria (“Qp”): Requires storage to attenuate the post-development 10-year, 24-hour peak discharge rate (Qp) to predevelopment rates. The Qp requirement does not apply when:
  - (1) the site discharges directly to tidal waters or fifth order or larger streams, or
  - (2) A downstream analysis reveals that *overbank* control is not required.
  
- (v) Extreme Flood Control Criteria (“Qf”): Requires storage to attenuate the post-development 100-year, 24-hour peak discharge rate (Qf) to predevelopment rates. The Qf requirement does not apply when:
  - (1) the site discharges directly to tidal waters or fifth order or larger streams, or
  - (2) A downstream analysis reveals that *overbank* control is not required.

**b. Sizing Criteria for New Development in Enhanced Phosphorus Removal Watershed**

- (i) Runoff Reduction Volume (RRv): Reduce the total Water Quality Volume (WQv) by application of RR techniques and standard SMPs with RRv capacity. The total WQv is the runoff volume from the 1-year, 24 hour design storm over the post-developed watershed and shall be

calculated in accordance with the criteria in Section 10.3 of the Design Manual.

- (ii) Minimum RRv and Treatment of Remaining Total WQv: *Construction activities* that cannot meet the criteria in Part I.C.2.b.(i) of this permit due to *site limitations* shall direct runoff from all newly constructed *impervious areas* to a RR technique or standard SMP with RRv capacity unless *infeasible*. The specific *site limitations* that prevent the reduction of 100% of the WQv shall be documented in the SWPPP. For each *impervious area* that is not directed to a RR technique or standard SMP with RRv capacity, the SWPPP must include documentation which demonstrates that all options were considered and for each option explains why it is considered *infeasible*.

**In no case shall the runoff reduction achieved from the newly constructed *impervious areas* be less than the Minimum RRv as calculated using the criteria in Section 10.3 of the Design Manual.** The remaining portion of the total WQv that cannot be reduced shall be treated by application of standard SMPs.

- (iii) Channel Protection Volume (Cpv): Provide 24 hour extended detention of the post-developed 1-year, 24-hour storm event; remaining after runoff reduction. The Cpv requirement does not apply when:
  - (1) Reduction of the entire Cpv is achieved by application of runoff reduction techniques or infiltration systems, or
  - (2) The site *discharges* directly to tidal waters, or fifth order or larger streams.
- (iv) *Overbank* Flood Control Criteria (Qp): Requires storage to attenuate the post-development 10-year, 24-hour peak *discharge* rate (Qp) to predevelopment rates. The Qp requirement does not apply when:
  - (1) the site *discharges* directly to tidal waters or fifth order or larger streams, or
  - (2) A downstream analysis reveals that *overbank* control is not required.
- (v) Extreme Flood Control Criteria (Qf): Requires storage to attenuate the post-development 100-year, 24-hour peak *discharge* rate (Qf) to predevelopment rates. The Qf requirement does not apply when:
  - (1) the site *discharges* directly to tidal waters or fifth order or larger streams, or
  - (2) A downstream analysis reveals that *overbank* control is not required.

### c. Sizing Criteria for Redevelopment Activity

- (i) Water Quality Volume (WQv): The WQv treatment objective for *redevelopment activity* shall be addressed by one of the following options. *Redevelopment activities* located in an Enhanced Phosphorus Removal Watershed (see Part III.B.3. and Appendix C of this permit) shall calculate the WQv in accordance with Section 10.3 of the Design Manual. All other *redevelopment activities* shall calculate the WQv in accordance with Section 4.2 of the Design Manual.
- (1) Reduce the existing *impervious cover* by a minimum of 25% of the total disturbed, *impervious area*. The Soil Restoration criteria in Section 5.1.6 of the Design Manual must be applied to all newly created pervious areas, or
  - (2) Capture and treat a minimum of 25% of the WQv from the disturbed, *impervious area* by the application of standard SMPs; or reduce 25% of the WQv from the disturbed, *impervious area* by the application of RR techniques or standard SMPs with RRv capacity., or
  - (3) Capture and treat a minimum of 75% of the WQv from the disturbed, *impervious area* as well as any additional runoff from tributary areas by application of the alternative practices discussed in Sections 9.3 and 9.4 of the Design Manual., or
  - (4) Application of a combination of 1, 2 and 3 above that provide a weighted average of at least two of the above methods. Application of this method shall be in accordance with the criteria in Section 9.2.1(B) (IV) of the Design Manual.

If there is an existing post-construction stormwater management practice located on the site that captures and treats runoff from the *impervious area* that is being disturbed, the WQv treatment option selected must, at a minimum, provide treatment equal to the treatment that was being provided by the existing practice(s) if that treatment is greater than the treatment required by options 1 – 4 above.

- (ii) Channel Protection Volume (Cpv): Not required if there are no changes to hydrology that increase the *discharge* rate from the project site.
- (iii) *Overbank* Flood Control Criteria (Qp): Not required if there are no changes to hydrology that increase the *discharge* rate from the project site.
- (iv) Extreme Flood Control Criteria (Qf): Not required if there are no changes to hydrology that increase the *discharge* rate from the project site

**d. Sizing Criteria for Combination of Redevelopment Activity and New Development**

Construction projects that include both New Development and Redevelopment Activity shall provide post-construction stormwater management controls that meet the sizing criteria calculated as an aggregate of the Sizing Criteria in Part I.C.2.a. or b. of this permit for the New Development portion of the project and Part I.C.2.c of this permit for Redevelopment Activity portion of the project.

**D. Maintaining Water Quality**

The Department expects that compliance with the conditions of this permit will control *discharges* necessary to meet applicable *water quality standards*. It shall be a violation of the *ECL* for any discharge to either cause or contribute to a violation of *water quality standards* as contained in Parts 700 through 705 of Title 6 of the Official Compilation of Codes, Rules and Regulations of the State of New York, such as:

1. There shall be no increase in turbidity that will cause a substantial visible contrast to natural conditions;
2. There shall be no increase in suspended, colloidal or settleable solids that will cause deposition or impair the waters for their best usages; and
3. There shall be no residue from oil and floating substances, nor visible oil film, nor globules of grease.

If there is evidence indicating that the stormwater *discharges* authorized by this permit are causing, have the reasonable potential to cause, or are contributing to a violation of the *water quality standards*; the *owner or operator* must take appropriate corrective action in accordance with Part IV.C.5. of this general permit and document in accordance with Part IV.C.4. of this general permit. To address the *water quality standard* violation the *owner or operator* may need to provide additional information, include and implement appropriate controls in the SWPPP to correct the problem, or obtain an individual SPDES permit.

If there is evidence indicating that despite compliance with the terms and conditions of this general permit it is demonstrated that the stormwater *discharges* authorized by this permit are causing or contributing to a violation of *water quality standards*, or if the Department determines that a modification of the permit is necessary to prevent a violation of *water quality standards*, the authorized *discharges* will no longer be eligible for coverage under this permit. The Department may require the *owner or operator* to obtain an individual SPDES permit to continue discharging.

## **E. Eligibility Under This General Permit**

1. This permit may authorize all *discharges* of stormwater from *construction activity to surface waters of the State* and *groundwaters* except for ineligible *discharges* identified under subparagraph F. of this Part.
2. Except for non-stormwater *discharges* explicitly listed in the next paragraph, this permit only authorizes stormwater *discharges*; including stormwater runoff, snowmelt runoff, and surface runoff and drainage, from *construction activities*.
3. Notwithstanding paragraphs E.1 and E.2 above, the following non-stormwater discharges are authorized by this permit: those listed in 6 NYCRR 750-1.2(a)(29)(vi), with the following exception: “Discharges from firefighting activities are authorized only when the firefighting activities are emergencies/unplanned”; waters to which other components have not been added that are used to control dust in accordance with the SWPPP; and uncontaminated *discharges* from *construction site* de-watering operations. All non-stormwater discharges must be identified in the SWPPP. Under all circumstances, the *owner or operator* must still comply with *water quality standards* in Part I.D of this permit.
4. The *owner or operator* must maintain permit eligibility to *discharge* under this permit. Any *discharges* that are not compliant with the eligibility conditions of this permit are not authorized by the permit and the *owner or operator* must either apply for a separate permit to cover those ineligible *discharges* or take steps necessary to make the *discharge* eligible for coverage.

## **F. Activities Which Are Ineligible for Coverage Under This General Permit**

All of the following are **not** authorized by this permit:

1. *Discharges after construction activities* have been completed and the site has undergone *final stabilization*;
2. *Discharges* that are mixed with sources of non-stormwater other than those expressly authorized under subsection E.3. of this Part and identified in the SWPPP required by this permit;
3. *Discharges* that are required to obtain an individual SPDES permit or another SPDES general permit pursuant to Part VII.K. of this permit;
4. *Construction activities or discharges from construction activities* that may adversely affect an *endangered or threatened species* unless the *owner or*

*operator* has obtained a permit issued pursuant to 6 NYCRR Part 182 for the project or the Department has issued a letter of non-jurisdiction for the project. All documentation necessary to demonstrate eligibility shall be maintained on site in accordance with Part II.D.2 of this permit;

5. *Discharges* which either cause or contribute to a violation of *water quality standards* adopted pursuant to the *ECL* and its accompanying regulations;
6. *Construction activities* for residential, commercial and institutional projects:
  - a. Where the *discharges* from the *construction activities* are tributary to waters of the state classified as AA or AA-s; and
  - b. Which are undertaken on land with no existing *impervious cover*; and
  - c. Which disturb one (1) or more acres of land designated on the current United States Department of Agriculture (“USDA”) Soil Survey as Soil Slope Phase “D”, (provided the map unit name is inclusive of slopes greater than 25%), or Soil Slope Phase “E” or “F” (regardless of the map unit name), or a combination of the three designations.
7. *Construction activities* for linear transportation projects and linear utility projects:
  - a. Where the *discharges* from the *construction activities* are tributary to waters of the state classified as AA or AA-s; and
  - b. Which are undertaken on land with no existing *impervious cover*; and
  - c. Which disturb two (2) or more acres of land designated on the current USDA Soil Survey as Soil Slope Phase “D” (provided the map unit name is inclusive of slopes greater than 25%), or Soil Slope Phase “E” or “F” (regardless of the map unit name), or a combination of the three designations.



8. *Construction activities* that have the potential to affect an *historic property*, unless there is documentation that such impacts have been resolved. The following documentation necessary to demonstrate eligibility with this requirement shall be maintained on site in accordance with Part II.D.2 of this permit and made available to the Department in accordance with Part VII.F of this permit:
  - a. Documentation that the *construction activity* is not within an archeologically sensitive area indicated on the sensitivity map, and that the *construction activity* is not located on or immediately adjacent to a property listed or determined to be eligible for listing on the National or State Registers of Historic Places, and that there is no new permanent building on the *construction site* within the following distances from a building, structure, or object that is more than 50 years old, or if there is such a new permanent building on the *construction site* within those parameters that NYS Office of Parks, Recreation and Historic Preservation (OPRHP), a Historic Preservation Commission of a Certified Local Government, or a qualified preservation professional has determined that the building, structure, or object more than 50 years old is not historically/archeologically significant.
    - 1-5 acres of disturbance - 20 feet
    - 5-20 acres of disturbance - 50 feet
    - 20+ acres of disturbance - 100 feet, or
  - b. DEC consultation form sent to OPRHP, and copied to the NYS DEC Agency Historic Preservation Officer (APO), and
    - (i) the State Environmental Quality Review (SEQR) Environmental Assessment Form (EAF) with a negative declaration or the Findings Statement, with documentation of OPRHP's agreement with the resolution; or
    - (ii) documentation from OPRHP that the *construction activity* will result in No Impact; or
    - (iii) documentation from OPRHP providing a determination of No Adverse Impact; or
    - (iv) a Letter of Resolution signed by the owner/operator, OPRHP and the DEC APO which allows for this *construction activity* to be eligible for coverage under the general permit in terms of the State Historic Preservation Act (SHPA); or
  - c. Documentation of satisfactory compliance with Section 106 of the National Historic Preservation Act for a coterminous project area:

- (i) No Affect
- (ii) No Adverse Affect
- (iii) Executed Memorandum of Agreement, or

d. Documentation that:

- (i) SHPA Section 14.09 has been completed by NYS DEC or another state agency.
9. *Discharges from construction activities* that are subject to an existing SPDES individual or general permit where a SPDES permit for *construction activity* has been terminated or denied; or where the *owner or operator* has failed to renew an expired individual permit.

## Part II. PERMIT COVERAGE

### A. How to Obtain Coverage

1. An *owner or operator* of a *construction activity* that is not subject to the requirements of a regulated, traditional land use control MS4 must first prepare a SWPPP in accordance with all applicable requirements of this permit and then submit a completed Notice of Intent (NOI) to the Department to be authorized to discharge under this permit.
2. An *owner or operator* of a *construction activity* that is subject to the requirements of a *regulated, traditional land use control MS4* must first prepare a SWPPP in accordance with all applicable requirements of this permit and then have the SWPPP reviewed and accepted by the *regulated, traditional land use control MS4* prior to submitting the NOI to the Department. The *owner or operator* shall have the “MS4 SWPPP Acceptance” form signed in accordance with Part VII.H., and then submit that form along with a completed NOI to the Department.
3. The requirement for an *owner or operator* to have its SWPPP reviewed and accepted by the *regulated, traditional land use control MS4* prior to submitting the NOI to the Department does not apply to an *owner or operator* that is obtaining permit coverage in accordance with the requirements in Part II.F. (Change of Owner or Operator) or where the *owner or operator* of the *construction activity* is the *regulated, traditional land use control MS4*. This exemption does not apply to *construction activities* subject to the New York City Administrative Code.

## B. Notice of Intent (NOI) Submittal

1. Prior to December 21, 2020, an owner or operator shall use either the electronic (eNOI) or paper version of the NOI that the Department prepared. Both versions of the NOI are located on the Department's website (<http://www.dec.ny.gov/>). The paper version of the NOI shall be signed in accordance with Part VII.H. of this permit and submitted to the following address:

**NOTICE OF INTENT  
NYS DEC, Bureau of Water Permits  
625 Broadway, 4<sup>th</sup> Floor  
Albany, New York 12233-3505**

2. Beginning December 21, 2020 and in accordance with EPA's 2015 NPDES Electronic Reporting Rule (40 CFR Part 127), the *owner or operator* must submit the NOI electronically using the *Department's* online NOI.
3. The *owner or operator* shall have the SWPPP preparer sign the "SWPPP Preparer Certification" statement on the NOI prior to submitting the form to the Department.
4. As of the date the NOI is submitted to the Department, the *owner or operator* shall make the NOI and SWPPP available for review and copying in accordance with the requirements in Part VII.F. of this permit.

## C. Permit Authorization

1. An *owner or operator* shall not *commence construction activity* until their authorization to *discharge* under this permit goes into effect.
2. Authorization to *discharge* under this permit will be effective when the *owner or operator* has satisfied all of the following criteria:
  - a. project review pursuant to the State Environmental Quality Review Act ("SEQRA") have been satisfied, when SEQRA is applicable. See the Department's website (<http://www.dec.ny.gov/>) for more information,
  - b. where required, all necessary Department permits subject to the *Uniform Procedures Act* ("UPA") (see 6 NYCRR Part 621), or the equivalent from another New York State agency, have been obtained, unless otherwise notified by the Department pursuant to 6 NYCRR 621.3(a)(4). *Owners or operators of construction activities* that are required to obtain UPA permits

must submit a preliminary SWPPP to the appropriate DEC Permit Administrator at the Regional Office listed in Appendix F at the time all other necessary *UPA* permit applications are submitted. The preliminary SWPPP must include sufficient information to demonstrate that the *construction activity* qualifies for authorization under this permit,

- c. the final SWPPP has been prepared, and
  - d. a complete NOI has been submitted to the Department in accordance with the requirements of this permit.
3. An *owner or operator* that has satisfied the requirements of Part II.C.2 above will be authorized to *discharge* stormwater from their *construction activity* in accordance with the following schedule:
- a. For *construction activities* that are not subject to the requirements of a *regulated, traditional land use control MS4*:
    - (i) Five (5) business days from the date the Department receives a complete electronic version of the NOI (eNOI) for *construction activities* with a SWPPP that has been prepared in conformance with the design criteria in the technical standard referenced in Part III.B.1 and the *performance criteria* in the technical standard referenced in Parts III.B., 2 or 3, for *construction activities* that require post-construction stormwater management practices pursuant to Part III.C.; or
    - (ii) Sixty (60) business days from the date the Department receives a complete NOI (electronic or paper version) for *construction activities* with a SWPPP that has not been prepared in conformance with the design criteria in technical standard referenced in Part III.B.1. or, for *construction activities* that require post-construction stormwater management practices pursuant to Part III.C., the *performance criteria* in the technical standard referenced in Parts III.B., 2 or 3, or;
    - (iii) Ten (10) business days from the date the Department receives a complete paper version of the NOI for *construction activities* with a SWPPP that has been prepared in conformance with the design criteria in the technical standard referenced in Part III.B.1 and the *performance criteria* in the technical standard referenced in Parts III.B., 2 or 3, for *construction activities* that require post-construction stormwater management practices pursuant to Part III.C.

- b. For *construction activities* that are subject to the requirements of a *regulated, traditional land use control MS4*:
  - (i) Five (5) business days from the date the Department receives both a complete electronic version of the NOI (eNOI) and signed “MS4 SWPPP Acceptance” form, or
  - (ii) Ten (10) business days from the date the Department receives both a complete paper version of the NOI and signed “MS4 SWPPP Acceptance” form.
4. Coverage under this permit authorizes stormwater *discharges* from only those areas of disturbance that are identified in the NOI. If an *owner or operator* wishes to have stormwater *discharges* from future or additional areas of disturbance authorized, they must submit a new NOI that addresses that phase of the development, unless otherwise notified by the Department. The *owner or operator* shall not *commence construction activity* on the future or additional areas until their authorization to *discharge* under this permit goes into effect in accordance with Part II.C. of this permit.

#### **D. General Requirements For Owners or Operators With Permit Coverage**

1. The *owner or operator* shall ensure that the provisions of the SWPPP are implemented from the *commencement of construction activity* until all areas of disturbance have achieved *final stabilization* and the Notice of Termination (“NOT”) has been submitted to the Department in accordance with Part V. of this permit. This includes any changes made to the SWPPP pursuant to Part III.A.4. of this permit.
2. The *owner or operator* shall maintain a copy of the General Permit (GP-0-20-001), NOI, *NOI Acknowledgment Letter*, SWPPP, MS4 SWPPP Acceptance form, inspection reports, responsible contractor’s or subcontractor’s certification statement (see Part III.A.6.), and all documentation necessary to demonstrate eligibility with this permit at the *construction site* until all disturbed areas have achieved *final stabilization* and the NOT has been submitted to the Department. The documents must be maintained in a secure location, such as a job trailer, on-site construction office, or mailbox with lock. The secure location must be accessible during normal business hours to an individual performing a compliance inspection.
3. The *owner or operator of a construction activity* shall not disturb greater than five (5) acres of soil at any one time without prior written authorization from the Department or, in areas under the jurisdiction of a *regulated, traditional land*

*use control MS4, the regulated, traditional land use control MS4 (provided the regulated, traditional land use control MS4 is not the owner or operator of the construction activity). At a minimum, the owner or operator must comply with the following requirements in order to be authorized to disturb greater than five (5) acres of soil at any one time:*

- a. The *owner or operator* shall have a *qualified inspector* conduct **at least** two (2) site inspections in accordance with Part IV.C. of this permit every seven (7) calendar days, for as long as greater than five (5) acres of soil remain disturbed. The two (2) inspections shall be separated by a minimum of two (2) full calendar days.
  - b. In areas where soil disturbance activity has temporarily or permanently ceased, the application of soil stabilization measures must be initiated by the end of the next business day and completed within seven (7) days from the date the current soil disturbance activity ceased. The soil stabilization measures selected shall be in conformance with the technical standard, New York State Standards and Specifications for Erosion and Sediment Control, dated November 2016.
  - c. The *owner or operator* shall prepare a phasing plan that defines maximum disturbed area per phase and shows required cuts and fills.
  - d. The *owner or operator* shall install any additional site-specific practices needed to protect water quality.
  - e. The *owner or operator* shall include the requirements above in their SWPPP.
4. In accordance with statute, regulations, and the terms and conditions of this permit, the Department may suspend or revoke an *owner's or operator's* coverage under this permit at any time if the Department determines that the SWPPP does not meet the permit requirements or consistent with Part VII.K..
  5. Upon a finding of significant non-compliance with the practices described in the SWPPP or violation of this permit, the Department may order an immediate stop to all activity at the site until the non-compliance is remedied. The stop work order shall be in writing, describe the non-compliance in detail, and be sent to the *owner or operator*.
  6. For *construction activities* that are subject to the requirements of a *regulated, traditional land use control MS4*, the *owner or operator* shall notify the

*regulated, traditional land use control MS4* in writing of any planned amendments or modifications to the post-construction stormwater management practice component of the SWPPP required by Part III.A. 4. and 5. of this permit. Unless otherwise notified by the *regulated, traditional land use control MS4*, the *owner or operator* shall have the SWPPP amendments or modifications reviewed and accepted by the *regulated, traditional land use control MS4* prior to commencing construction of the post-construction stormwater management practice.

#### **E. Permit Coverage for Discharges Authorized Under GP-0-15-002**

1. Upon renewal of SPDES General Permit for Stormwater Discharges from *Construction Activity* (Permit No. GP-0-15-002), an *owner or operator* of a *construction activity* with coverage under GP-0-15-002, as of the effective date of GP- 0-20-001, shall be authorized to *discharge* in accordance with GP- 0-20-001, unless otherwise notified by the Department.

An *owner or operator* may continue to implement the technical/design components of the post-construction stormwater management controls provided that such design was done in conformance with the technical standards in place at the time of initial project authorization. However, they must comply with the other, non-design provisions of GP-0-20-001.

#### **F. Change of Owner or Operator**

1. When property ownership changes or when there is a change in operational control over the construction plans and specifications, the original *owner or operator* must notify the new *owner or operator*, in writing, of the requirement to obtain permit coverage by submitting a NOI with the Department. For *construction activities* subject to the requirements of a *regulated, traditional land use control MS4*, the original *owner or operator* must also notify the MS4, in writing, of the change in ownership at least 30 calendar days prior to the change in ownership.
2. Once the new *owner or operator* obtains permit coverage, the original *owner or operator* shall then submit a completed NOT with the name and permit identification number of the new *owner or operator* to the Department at the address in Part II.B.1. of this permit. If the original *owner or operator* maintains ownership of a portion of the *construction activity* and will disturb soil, they must maintain their coverage under the permit.
3. Permit coverage for the new *owner or operator* will be effective as of the date the Department receives a complete NOI, provided the original *owner or*

*operator* was not subject to a sixty (60) business day authorization period that has not expired as of the date the Department receives the NOI from the new *owner or operator*.

### Part III. STORMWATER POLLUTION PREVENTION PLAN (SWPPP)

#### A. General SWPPP Requirements

1. A SWPPP shall be prepared and implemented by the *owner or operator* of each *construction activity* covered by this permit. The SWPPP must document the selection, design, installation, implementation and maintenance of the control measures and practices that will be used to meet the effluent limitations in Part I.B. of this permit and where applicable, the post-construction stormwater management practice requirements in Part I.C. of this permit. The SWPPP shall be prepared prior to the submittal of the NOI. The NOI shall be submitted to the Department prior to the *commencement of construction activity*. A copy of the completed, final NOI shall be included in the SWPPP.
2. The SWPPP shall describe the erosion and sediment control practices and where required, post-construction stormwater management practices that will be used and/or constructed to reduce the *pollutants* in stormwater *discharges* and to assure compliance with the terms and conditions of this permit. In addition, the SWPPP shall identify potential sources of pollution which may reasonably be expected to affect the quality of stormwater *discharges*.
3. All SWPPPs that require the post-construction stormwater management practice component shall be prepared by a *qualified professional* that is knowledgeable in the principles and practices of stormwater management and treatment.
4. The *owner or operator* must keep the SWPPP current so that it at all times accurately documents the erosion and sediment controls practices that are being used or will be used during construction, and all post-construction stormwater management practices that will be constructed on the site. At a minimum, the *owner or operator* shall amend the SWPPP, including construction drawings:
  - a. whenever the current provisions prove to be ineffective in minimizing *pollutants* in stormwater *discharges* from the site;



- b. whenever there is a change in design, construction, or operation at the *construction site* that has or could have an effect on the *discharge* of *pollutants*;
  - c. to address issues or deficiencies identified during an inspection by the *qualified inspector*, the Department or other regulatory authority; and
  - d. to document the final construction conditions.
5. The Department may notify the *owner or operator* at any time that the SWPPP does not meet one or more of the minimum requirements of this permit. The notification shall be in writing and identify the provisions of the SWPPP that require modification. Within fourteen (14) calendar days of such notification, or as otherwise indicated by the Department, the *owner or operator* shall make the required changes to the SWPPP and submit written notification to the Department that the changes have been made. If the *owner or operator* does not respond to the Department's comments in the specified time frame, the Department may suspend the *owner's or operator's* coverage under this permit or require the *owner or operator* to obtain coverage under an individual SPDES permit in accordance with Part II.D.4. of this permit.
6. Prior to the *commencement of construction activity*, the *owner or operator* must identify the contractor(s) and subcontractor(s) that will be responsible for installing, constructing, repairing, replacing, inspecting and maintaining the erosion and sediment control practices included in the SWPPP; and the contractor(s) and subcontractor(s) that will be responsible for constructing the post-construction stormwater management practices included in the SWPPP. The *owner or operator* shall have each of the contractors and subcontractors identify at least one person from their company that will be responsible for implementation of the SWPPP. This person shall be known as the *trained contractor*. The *owner or operator* shall ensure that at least one *trained contractor* is on site on a daily basis when soil disturbance activities are being performed.

The *owner or operator* shall have each of the contractors and subcontractors identified above sign a copy of the following certification statement below before they commence any *construction activity*:

"I hereby certify under penalty of law that I understand and agree to comply with the terms and conditions of the SWPPP and agree to implement any corrective actions identified by the *qualified inspector* during a site inspection. I also understand that the *owner or operator* must comply with

the terms and conditions of the most current version of the New York State Pollutant Discharge Elimination System ("SPDES") general permit for stormwater *discharges* from *construction activities* and that it is unlawful for any person to cause or contribute to a violation of *water quality standards*. Furthermore, I am aware that there are significant penalties for submitting false information, that I do not believe to be true, including the possibility of fine and imprisonment for knowing violations"

In addition to providing the certification statement above, the certification page must also identify the specific elements of the SWPPP that each contractor and subcontractor will be responsible for and include the name and title of the person providing the signature; the name and title of the *trained contractor* responsible for SWPPP implementation; the name, address and telephone number of the contracting firm; the address (or other identifying description) of the site; and the date the certification statement is signed. The *owner or operator* shall attach the certification statement(s) to the copy of the SWPPP that is maintained at the *construction site*. If new or additional contractors are hired to implement measures identified in the SWPPP after construction has commenced, they must also sign the certification statement and provide the information listed above.

7. For projects where the Department requests a copy of the SWPPP or inspection reports, the *owner or operator* shall submit the documents in both electronic (PDF only) and paper format within five (5) business days, unless otherwise notified by the Department.

## **B. Required SWPPP Contents**

1. Erosion and sediment control component - All SWPPPs prepared pursuant to this permit shall include erosion and sediment control practices designed in conformance with the technical standard, New York State Standards and Specifications for Erosion and Sediment Control, dated November 2016. Where erosion and sediment control practices are not designed in conformance with the design criteria included in the technical standard, the *owner or operator* must demonstrate *equivalence* to the technical standard. At a minimum, the erosion and sediment control component of the SWPPP shall include the following:
  - a. Background information about the scope of the project, including the location, type and size of project

- b. A site map/construction drawing(s) for the project, including a general location map. At a minimum, the site map shall show the total site area; all improvements; areas of disturbance; areas that will not be disturbed; existing vegetation; on-site and adjacent off-site surface water(s); floodplain/floodway boundaries; wetlands and drainage patterns that could be affected by the *construction activity*; existing and final contours ; locations of different soil types with boundaries; material, waste, borrow or equipment storage areas located on adjacent properties; and location(s) of the stormwater *discharge(s)*;
- c. A description of the soil(s) present at the site, including an identification of the Hydrologic Soil Group (HSG);
- d. A construction phasing plan and sequence of operations describing the intended order of *construction activities*, including clearing and grubbing, excavation and grading, utility and infrastructure installation and any other activity at the site that results in soil disturbance;
- e. A description of the minimum erosion and sediment control practices to be installed or implemented for each *construction activity* that will result in soil disturbance. Include a schedule that identifies the timing of initial placement or implementation of each erosion and sediment control practice and the minimum time frames that each practice should remain in place or be implemented;
- f. A temporary and permanent soil stabilization plan that meets the requirements of this general permit and the technical standard, New York State Standards and Specifications for Erosion and Sediment Control, dated November 2016, for each stage of the project, including initial land clearing and grubbing to project completion and achievement of *final stabilization*;
- g. A site map/construction drawing(s) showing the specific location(s), size(s), and length(s) of each erosion and sediment control practice;
- h. The dimensions, material specifications, installation details, and operation and maintenance requirements for all erosion and sediment control practices. Include the location and sizing of any temporary sediment basins and structural practices that will be used to divert flows from exposed soils;
- i. A maintenance inspection schedule for the contractor(s) identified in Part III.A.6. of this permit, to ensure continuous and effective operation of the erosion and sediment control practices. The maintenance inspection

schedule shall be in accordance with the requirements in the technical standard, New York State Standards and Specifications for Erosion and Sediment Control, dated November 2016;

- j. A description of the pollution prevention measures that will be used to control litter, construction chemicals and construction debris from becoming a *pollutant* source in the stormwater *discharges*;
  - k. A description and location of any stormwater *discharges* associated with industrial activity other than construction at the site, including, but not limited to, stormwater *discharges* from asphalt plants and concrete plants located on the *construction site*; and
  - l. Identification of any elements of the design that are not in conformance with the design criteria in the technical standard, New York State Standards and Specifications for Erosion and Sediment Control, dated November 2016. Include the reason for the deviation or alternative design and provide information which demonstrates that the deviation or alternative design is *equivalent* to the technical standard.
2. Post-construction stormwater management practice component – The *owner or operator* of any construction project identified in Table 2 of Appendix B as needing post-construction stormwater management practices shall prepare a SWPPP that includes practices designed in conformance with the applicable *sizing criteria* in Part I.C.2.a., c. or d. of this permit and the *performance criteria* in the technical standard, New York State Stormwater Management Design Manual dated January 2015

Where post-construction stormwater management practices are not designed in conformance with the *performance criteria* in the technical standard, the *owner or operator* must include in the SWPPP the reason(s) for the deviation or alternative design and provide information which demonstrates that the deviation or alternative design is *equivalent* to the technical standard.

The post-construction stormwater management practice component of the SWPPP shall include the following:

- a. Identification of all post-construction stormwater management practices to be constructed as part of the project. Include the dimensions, material specifications and installation details for each post-construction stormwater management practice;

- b. A site map/construction drawing(s) showing the specific location and size of each post-construction stormwater management practice;
- c. A Stormwater Modeling and Analysis Report that includes:
  - (i) Map(s) showing pre-development conditions, including watershed/subcatchments boundaries, flow paths/routing, and design points;
  - (ii) Map(s) showing post-development conditions, including watershed/subcatchments boundaries, flow paths/routing, design points and post-construction stormwater management practices;
  - (iii) Results of stormwater modeling (i.e. hydrology and hydraulic analysis) for the required storm events. Include supporting calculations (model runs), methodology, and a summary table that compares pre and post-development runoff rates and volumes for the different storm events;
  - (iv) Summary table, with supporting calculations, which demonstrates that each post-construction stormwater management practice has been designed in conformance with the *sizing criteria* included in the Design Manual;
  - (v) Identification of any *sizing criteria* that is not required based on the requirements included in Part I.C. of this permit; and
  - (vi) Identification of any elements of the design that are not in conformance with the *performance criteria* in the Design Manual. Include the reason(s) for the deviation or alternative design and provide information which demonstrates that the deviation or alternative design is *equivalent* to the Design Manual;
- d. Soil testing results and locations (test pits, borings);
- e. Infiltration test results, when required; and
- f. An operations and maintenance plan that includes inspection and maintenance schedules and actions to ensure continuous and effective operation of each post-construction stormwater management practice. The plan shall identify the entity that will be responsible for the long term operation and maintenance of each practice.

3. Enhanced Phosphorus Removal Standards - All construction projects identified in Table 2 of Appendix B that are located in the watersheds identified in Appendix C shall prepare a SWPPP that includes post-construction stormwater management practices designed in conformance with the applicable *sizing criteria* in Part I.C.2. b., c. or d. of this permit and the *performance criteria*, Enhanced Phosphorus Removal Standards included in the Design Manual. At a minimum, the post-construction stormwater management practice component of the SWPPP shall include items 2.a - 2.f. above.

### **C. Required SWPPP Components by Project Type**

Unless otherwise notified by the Department, *owners or operators of construction activities* identified in Table 1 of Appendix B are required to prepare a SWPPP that only includes erosion and sediment control practices designed in conformance with Part III.B.1 of this permit. *Owners or operators of the construction activities* identified in Table 2 of Appendix B shall prepare a SWPPP that also includes post-construction stormwater management practices designed in conformance with Part III.B.2 or 3 of this permit.

## **Part IV. INSPECTION AND MAINTENANCE REQUIREMENTS**

### **A. General Construction Site Inspection and Maintenance Requirements**

1. The *owner or operator* must ensure that all erosion and sediment control practices (including pollution prevention measures) and all post-construction stormwater management practices identified in the SWPPP are inspected and maintained in accordance with Part IV.B. and C. of this permit.
2. The terms of this permit shall not be construed to prohibit the State of New York from exercising any authority pursuant to the ECL, common law or federal law, or prohibit New York State from taking any measures, whether civil or criminal, to prevent violations of the laws of the State of New York or protect the public health and safety and/or the environment.

### **B. Contractor Maintenance Inspection Requirements**

1. The *owner or operator* of each *construction activity* identified in Tables 1 and 2 of Appendix B shall have a *trained contractor* inspect the erosion and sediment control practices and pollution prevention measures being implemented within the active work area daily to ensure that they are being maintained in effective operating condition at all times. If deficiencies are identified, the contractor shall

begin implementing corrective actions within one business day and shall complete the corrective actions in a reasonable time frame.

2. For construction sites where soil disturbance activities have been temporarily suspended (e.g. winter shutdown) and *temporary stabilization* measures have been applied to all disturbed areas, the *trained contractor* can stop conducting the maintenance inspections. The *trained contractor* shall begin conducting the maintenance inspections in accordance with Part IV.B.1. of this permit as soon as soil disturbance activities resume.
3. For construction sites where soil disturbance activities have been shut down with partial project completion, the *trained contractor* can stop conducting the maintenance inspections if all areas disturbed as of the project shutdown date have achieved *final stabilization* and all post-construction stormwater management practices required for the completed portion of the project have been constructed in conformance with the SWPPP and are operational.

### C. Qualified Inspector Inspection Requirements

The *owner or operator* shall have a *qualified inspector* conduct site inspections in conformance with the following requirements:

[Note: The *trained contractor* identified in Part III.A.6. and IV.B. of this permit **cannot** conduct the *qualified inspector* site inspections unless they meet the *qualified inspector* qualifications included in Appendix A. In order to perform these inspections, the *trained contractor* would have to be a:

- licensed Professional Engineer,
  - Certified Professional in Erosion and Sediment Control (CPESC),
  - New York State Erosion and Sediment Control Certificate Program holder
  - Registered Landscape Architect, or
  - someone working under the direct supervision of, and at the same company as, the licensed Professional Engineer or Registered Landscape Architect, provided they have received four (4) hours of Department endorsed training in proper erosion and sediment control principles from a Soil and Water Conservation District, or other Department endorsed entity].
1. A *qualified inspector* shall conduct site inspections for all *construction activities* identified in Tables 1 and 2 of Appendix B, with the exception of:
    - a. the construction of a single family residential subdivision with 25% or less *impervious cover* at total site build-out that involves a soil disturbance of one (1) or more acres of land but less than five (5) acres and is not located

in one of the watersheds listed in Appendix C and not directly discharging to one of the 303(d) segments listed in Appendix E;

- b. the construction of a single family home that involves a soil disturbance of one (1) or more acres of land but less than five (5) acres and is not located in one of the watersheds listed in Appendix C and not directly discharging to one of the 303(d) segments listed in Appendix E;
  - c. construction on agricultural property that involves a soil disturbance of one (1) or more acres of land but less than five (5) acres; and
  - d. *construction activities* located in the watersheds identified in Appendix D that involve soil disturbances between five thousand (5,000) square feet and one (1) acre of land.
2. Unless otherwise notified by the Department, the *qualified inspector* shall conduct site inspections in accordance with the following timetable:
- a. For construction sites where soil disturbance activities are on-going, the *qualified inspector* shall conduct a site inspection at least once every seven (7) calendar days.
  - b. For construction sites where soil disturbance activities are on-going and the *owner or operator* has received authorization in accordance with Part II.D.3 to disturb greater than five (5) acres of soil at any one time, the *qualified inspector* shall conduct at least two (2) site inspections every seven (7) calendar days. The two (2) inspections shall be separated by a minimum of two (2) full calendar days.
  - c. For construction sites where soil disturbance activities have been temporarily suspended (e.g. winter shutdown) and *temporary stabilization* measures have been applied to all disturbed areas, the *qualified inspector* shall conduct a site inspection at least once every thirty (30) calendar days. The *owner or operator* shall notify the DOW Water (SPDES) Program contact at the Regional Office (see contact information in Appendix F) or, in areas under the jurisdiction of a *regulated, traditional land use control MS4*, the *regulated, traditional land use control MS4* (provided the *regulated, traditional land use control MS4* is not the *owner or operator* of the *construction activity*) in writing prior to reducing the frequency of inspections.



- d. For construction sites where soil disturbance activities have been shut down with partial project completion, the *qualified inspector* can stop conducting inspections if all areas disturbed as of the project shutdown date have achieved *final stabilization* and all post-construction stormwater management practices required for the completed portion of the project have been constructed in conformance with the SWPPP and are operational. The *owner or operator* shall notify the DOW Water (SPDES) Program contact at the Regional Office (see contact information in Appendix F) or, in areas under the jurisdiction of a *regulated, traditional land use control MS4*, the *regulated, traditional land use control MS4* (provided the *regulated, traditional land use control MS4* is not the *owner or operator* of the *construction activity*) in writing prior to the shutdown. If soil disturbance activities are not resumed within 2 years from the date of shutdown, the *owner or operator* shall have the *qualified inspector* perform a final inspection and certify that all disturbed areas have achieved *final stabilization*, and all temporary, structural erosion and sediment control measures have been removed; and that all post-construction stormwater management practices have been constructed in conformance with the SWPPP by signing the “*Final Stabilization*” and “*Post-Construction Stormwater Management Practice*” certification statements on the NOT. The *owner or operator* shall then submit the completed NOT form to the address in Part II.B.1 of this permit.
  - e. For construction sites that directly *discharge* to one of the 303(d) segments listed in Appendix E or is located in one of the watersheds listed in Appendix C, the *qualified inspector* shall conduct at least two (2) site inspections every seven (7) calendar days. The two (2) inspections shall be separated by a minimum of two (2) full calendar days.
3. At a minimum, the *qualified inspector* shall inspect all erosion and sediment control practices and pollution prevention measures to ensure integrity and effectiveness, all post-construction stormwater management practices under construction to ensure that they are constructed in conformance with the SWPPP, all areas of disturbance that have not achieved *final stabilization*, all points of *discharge* to natural surface waterbodies located within, or immediately adjacent to, the property boundaries of the *construction site*, and all points of *discharge* from the *construction site*.
  4. The *qualified inspector* shall prepare an inspection report subsequent to each and every inspection. At a minimum, the inspection report shall include and/or address the following:

- a. Date and time of inspection;
- b. Name and title of person(s) performing inspection;
- c. A description of the weather and soil conditions (e.g. dry, wet, saturated) at the time of the inspection;
- d. A description of the condition of the runoff at all points of *discharge* from the *construction site*. This shall include identification of any *discharges* of sediment from the *construction site*. Include *discharges* from conveyance systems (i.e. pipes, culverts, ditches, etc.) and overland flow;
- e. A description of the condition of all natural surface waterbodies located within, or immediately adjacent to, the property boundaries of the *construction site* which receive runoff from disturbed areas. This shall include identification of any *discharges* of sediment to the surface waterbody;
- f. Identification of all erosion and sediment control practices and pollution prevention measures that need repair or maintenance;
- g. Identification of all erosion and sediment control practices and pollution prevention measures that were not installed properly or are not functioning as designed and need to be reinstalled or replaced;
- h. Description and sketch of areas with active soil disturbance activity, areas that have been disturbed but are inactive at the time of the inspection, and areas that have been stabilized (temporary and/or final) since the last inspection;
- i. Current phase of construction of all post-construction stormwater management practices and identification of all construction that is not in conformance with the SWPPP and technical standards;
- j. Corrective action(s) that must be taken to install, repair, replace or maintain erosion and sediment control practices and pollution prevention measures; and to correct deficiencies identified with the construction of the post-construction stormwater management practice(s);
- k. Identification and status of all corrective actions that were required by previous inspection; and

- I. Digital photographs, with date stamp, that clearly show the condition of all practices that have been identified as needing corrective actions. The *qualified inspector* shall attach paper color copies of the digital photographs to the inspection report being maintained onsite within seven (7) calendar days of the date of the inspection. The *qualified inspector* shall also take digital photographs, with date stamp, that clearly show the condition of the practice(s) after the corrective action has been completed. The *qualified inspector* shall attach paper color copies of the digital photographs to the inspection report that documents the completion of the corrective action work within seven (7) calendar days of that inspection.
5. Within one business day of the completion of an inspection, the *qualified inspector* shall notify the *owner or operator* and appropriate contractor or subcontractor identified in Part III.A.6. of this permit of any corrective actions that need to be taken. The contractor or subcontractor shall begin implementing the corrective actions within one business day of this notification and shall complete the corrective actions in a reasonable time frame.
6. All inspection reports shall be signed by the *qualified inspector*. Pursuant to Part II.D.2. of this permit, the inspection reports shall be maintained on site with the SWPPP.

## **Part V. TERMINATION OF PERMIT COVERAGE**

### **A. Termination of Permit Coverage**

1. An *owner or operator* that is eligible to terminate coverage under this permit must submit a completed NOT form to the address in Part II.B.1 of this permit. The NOT form shall be one which is associated with this permit, signed in accordance with Part VII.H of this permit.
2. An *owner or operator* may terminate coverage when one or more the following conditions have been met:
  - a. Total project completion - All *construction activity* identified in the SWPPP has been completed; and all areas of disturbance have achieved *final stabilization*; and all temporary, structural erosion and sediment control measures have been removed; and all post-construction stormwater management practices have been constructed in conformance with the SWPPP and are operational;

- b. Planned shutdown with partial project completion - All soil disturbance activities have ceased; and all areas disturbed as of the project shutdown date have achieved *final stabilization*; and all temporary, structural erosion and sediment control measures have been removed; and all post-construction stormwater management practices required for the completed portion of the project have been constructed in conformance with the SWPPP and are operational;
    - c. A new *owner or operator* has obtained coverage under this permit in accordance with Part II.F. of this permit.
    - d. The *owner or operator* obtains coverage under an alternative SPDES general permit or an individual SPDES permit.
  3. For *construction activities* meeting subdivision 2a. or 2b. of this Part, the *owner or operator* shall have the *qualified inspector* perform a final site inspection prior to submitting the NOT. The *qualified inspector* shall, by signing the “*Final Stabilization*” and “*Post-Construction Stormwater Management Practice certification statements*” on the NOT, certify that all the requirements in Part V.A.2.a. or b. of this permit have been achieved.
  4. For *construction activities* that are subject to the requirements of a *regulated, traditional land use control MS4* and meet subdivision 2a. or 2b. of this Part, the *owner or operator* shall have the *regulated, traditional land use control MS4* sign the “*MS4 Acceptance*” statement on the NOT in accordance with the requirements in Part VII.H. of this permit. The *regulated, traditional land use control MS4* official, by signing this statement, has determined that it is acceptable for the *owner or operator* to submit the NOT in accordance with the requirements of this Part. The *regulated, traditional land use control MS4* can make this determination by performing a final site inspection themselves or by accepting the *qualified inspector’s* final site inspection certification(s) required in Part V.A.3. of this permit.
  5. For *construction activities* that require post-construction stormwater management practices and meet subdivision 2a. of this Part, the *owner or operator* must, prior to submitting the NOT, ensure one of the following:
    - a. the post-construction stormwater management practice(s) and any right-of-way(s) needed to maintain such practice(s) have been deeded to the municipality in which the practice(s) is located,

- b. an executed maintenance agreement is in place with the municipality that will maintain the post-construction stormwater management practice(s),
- c. for post-construction stormwater management practices that are privately owned, the *owner or operator* has a mechanism in place that requires operation and maintenance of the practice(s) in accordance with the operation and maintenance plan, such as a deed covenant in the *owner or operator's* deed of record,
- d. for post-construction stormwater management practices that are owned by a public or private institution (e.g. school, university, hospital), government agency or authority, or public utility; the *owner or operator* has policy and procedures in place that ensures operation and maintenance of the practices in accordance with the operation and maintenance plan.

## **Part VI. REPORTING AND RETENTION RECORDS**

### **A. Record Retention**

The *owner or operator* shall retain a copy of the NOI, NOI Acknowledgment Letter, SWPPP, MS4 SWPPP Acceptance form and any inspection reports that were prepared in conjunction with this permit for a period of at least five (5) years from the date that the Department receives a complete NOT submitted in accordance with Part V. of this general permit.

### **B. Addresses**

With the exception of the NOI, NOT, and MS4 SWPPP Acceptance form (which must be submitted to the address referenced in Part II.B.1 of this permit), all written correspondence requested by the Department, including individual permit applications, shall be sent to the address of the appropriate DOW Water (SPDES) Program contact at the Regional Office listed in Appendix F.

## **Part VII. STANDARD PERMIT CONDITIONS**

### **A. Duty to Comply**

The *owner or operator* must comply with all conditions of this permit. All contractors and subcontractors associated with the project must comply with the terms of the SWPPP. Any non-compliance with this permit constitutes a violation of the Clean Water

Act (CWA) and the ECL and is grounds for an enforcement action against the *owner or operator* and/or the contractor/subcontractor; permit revocation, suspension or modification; or denial of a permit renewal application. Upon a finding of significant non-compliance with this permit or the applicable SWPPP, the Department may order an immediate stop to all *construction activity* at the site until the non-compliance is remedied. The stop work order shall be in writing, shall describe the non-compliance in detail, and shall be sent to the *owner or operator*.

If any human remains or archaeological remains are encountered during excavation, the *owner or operator* must immediately cease, or cause to cease, all *construction activity* in the area of the remains and notify the appropriate Regional Water Engineer (RWE). *Construction activity* shall not resume until written permission to do so has been received from the RWE.

#### **B. Continuation of the Expired General Permit**

This permit expires five (5) years from the effective date. If a new general permit is not issued prior to the expiration of this general permit, an *owner or operator* with coverage under this permit may continue to operate and *discharge* in accordance with the terms and conditions of this general permit, if it is extended pursuant to the State Administrative Procedure Act and 6 NYCRR Part 621, until a new general permit is issued.

#### **C. Enforcement**

Failure of the *owner or operator*, its contractors, subcontractors, agents and/or assigns to strictly adhere to any of the permit requirements contained herein shall constitute a violation of this permit. There are substantial criminal, civil, and administrative penalties associated with violating the provisions of this permit. Fines of up to \$37,500 per day for each violation and imprisonment for up to fifteen (15) years may be assessed depending upon the nature and degree of the offense.

#### **D. Need to Halt or Reduce Activity Not a Defense**

It shall not be a defense for an *owner or operator* in an enforcement action that it would have been necessary to halt or reduce the *construction activity* in order to maintain compliance with the conditions of this permit.

### **E. Duty to Mitigate**

The *owner or operator* and its contractors and subcontractors shall take all reasonable steps to *minimize* or prevent any *discharge* in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.

### **F. Duty to Provide Information**

The *owner or operator* shall furnish to the Department, within a reasonable specified time period of a written request, all documentation necessary to demonstrate eligibility and any information to determine compliance with this permit or to determine whether cause exists for modifying or revoking this permit, or suspending or denying coverage under this permit, in accordance with the terms and conditions of this permit. The NOI, SWPPP and inspection reports required by this permit are public documents that the *owner or operator* must make available for review and copying by any person within five (5) business days of the *owner or operator* receiving a written request by any such person to review these documents. Copying of documents will be done at the requester's expense.

### **G. Other Information**

When the *owner or operator* becomes aware that they failed to submit any relevant facts, or submitted incorrect information in the NOI or in any of the documents required by this permit, or have made substantive revisions to the SWPPP (e.g. the scope of the project changes significantly, the type of post-construction stormwater management practice(s) changes, there is a reduction in the sizing of the post-construction stormwater management practice, or there is an increase in the disturbance area or *impervious area*), which were not reflected in the original NOI submitted to the Department, they shall promptly submit such facts or information to the Department using the contact information in Part II.A. of this permit. Failure of the *owner or operator* to correct or supplement any relevant facts within five (5) business days of becoming aware of the deficiency shall constitute a violation of this permit.

### **H. Signatory Requirements**

1. All NOIs and NOTs shall be signed as follows:
  - a. For a corporation these forms shall be signed by a responsible corporate officer. For the purpose of this section, a responsible corporate officer means:

- (i) a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation; or
    - (ii) the manager of one or more manufacturing, production or operating facilities, provided the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures;
  - b. For a partnership or sole proprietorship these forms shall be signed by a general partner or the proprietor, respectively; or
  - c. For a municipality, State, Federal, or other public agency these forms shall be signed by either a principal executive officer or ranking elected official. For purposes of this section, a principal executive officer of a Federal agency includes:
    - (i) the chief executive officer of the agency, or
    - (ii) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrators of EPA).
2. The SWPPP and other information requested by the Department shall be signed by a person described in Part VII.H.1. of this permit or by a duly authorized representative of that person. A person is a duly authorized representative only if:
- a. The authorization is made in writing by a person described in Part VII.H.1. of this permit;
  - b. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of plant manager, operator of a well or a well field,



superintendent, position of *equivalent* responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position) and,

- c. The written authorization shall include the name, title and signature of the authorized representative and be attached to the SWPPP.
3. All inspection reports shall be signed by the *qualified inspector* that performs the inspection.
4. The MS4 SWPPP Acceptance form shall be signed by the principal executive officer or ranking elected official from the *regulated, traditional land use control MS4*, or by a duly authorized representative of that person.

It shall constitute a permit violation if an incorrect and/or improper signatory authorizes any required forms, SWPPP and/or inspection reports.

## **I. Property Rights**

The issuance of this permit does not convey any property rights of any sort, nor any exclusive privileges, nor does it authorize any injury to private property nor any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations. *Owners or operators* must obtain any applicable conveyances, easements, licenses and/or access to real property prior to *commencing construction activity*.

## **J. Severability**

The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit shall not be affected thereby.

## **K. Requirement to Obtain Coverage Under an Alternative Permit**

1. The Department may require any owner or operator authorized by this permit to apply for and/or obtain either an individual SPDES permit or another SPDES general permit. When the Department requires any discharger authorized by a general permit to apply for an individual SPDES permit, it shall notify the discharger in writing that a permit application is required. This notice shall

include a brief statement of the reasons for this decision, an application form, a statement setting a time frame for the owner or operator to file the application for an individual SPDES permit, and a deadline, not sooner than 180 days from owner or operator receipt of the notification letter, whereby the authorization to discharge under this general permit shall be terminated. Applications must be submitted to the appropriate Permit Administrator at the Regional Office. The Department may grant additional time upon demonstration, to the satisfaction of the Department, that additional time to apply for an alternative authorization is necessary or where the Department has not provided a permit determination in accordance with Part 621 of this Title.

2. When an individual SPDES permit is issued to a discharger authorized to *discharge* under a general SPDES permit for the same *discharge(s)*, the general permit authorization for outfalls authorized under the individual SPDES permit is automatically terminated on the effective date of the individual permit unless termination is earlier in accordance with 6 NYCRR Part 750.

#### **L. Proper Operation and Maintenance**

The *owner or operator* shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the *owner or operator* to achieve compliance with the conditions of this permit and with the requirements of the SWPPP.

#### **M. Inspection and Entry**

The *owner or operator* shall allow an authorized representative of the Department, EPA, applicable county health department, or, in the case of a *construction site* which *discharges* through an *MS4*, an authorized representative of the *MS4* receiving the discharge, upon the presentation of credentials and other documents as may be required by law, to:

1. Enter upon the owner's or operator's premises where a regulated facility or activity is located or conducted or where records must be kept under the conditions of this permit;
2. Have access to and copy at reasonable times, any records that must be kept under the conditions of this permit; and

3. Inspect at reasonable times any facilities or equipment (including monitoring and control equipment), practices or operations regulated or required by this permit.
4. Sample or monitor at reasonable times, for purposes of assuring permit compliance or as otherwise authorized by the Act or ECL, any substances or parameters at any location.

#### **N. Permit Actions**

This permit may, at any time, be modified, suspended, revoked, or renewed by the Department in accordance with 6 NYCRR Part 621. The filing of a request by the *owner or operator* for a permit modification, revocation and reissuance, termination, a notification of planned changes or anticipated noncompliance does not limit, diminish and/or stay compliance with any terms of this permit.

#### **O. Definitions**

Definitions of key terms are included in Appendix A of this permit.

#### **P. Re-Opener Clause**

1. If there is evidence indicating potential or realized impacts on water quality due to any stormwater discharge associated with construction activity covered by this permit, the owner or operator of such discharge may be required to obtain an individual permit or alternative general permit in accordance with Part VII.K. of this permit or the permit may be modified to include different limitations and/or requirements.
2. Any Department initiated permit modification, suspension or revocation will be conducted in accordance with 6 NYCRR Part 621, 6 NYCRR 750-1.18, and 6 NYCRR 750-1.20.

#### **Q. Penalties for Falsification of Forms and Reports**

In accordance with 6NYCRR Part 750-2.4 and 750-2.5, any person who knowingly makes any false material statement, representation, or certification in any application, record, report or other document filed or required to be maintained under this permit, including reports of compliance or noncompliance shall, upon conviction, be punished in accordance with ECL §71-1933 and or Articles 175 and 210 of the New York State Penal Law.

**R. Other Permits**

Nothing in this permit relieves the *owner or operator* from a requirement to obtain any other permits required by law.

## **APPENDIX A – Acronyms and Definitions**

### **Acronyms**

APO – Agency Preservation Officer

BMP – Best Management Practice

CPESC – Certified Professional in Erosion and Sediment Control

Cpv – Channel Protection Volume

CWA – Clean Water Act (or the Federal Water Pollution Control Act, 33 U.S.C. §1251 et seq)

DOW – Division of Water

EAF – Environmental Assessment Form

ECL - Environmental Conservation Law

EPA – U. S. Environmental Protection Agency

HSG – Hydrologic Soil Group

MS4 – Municipal Separate Storm Sewer System

NOI – Notice of Intent

NOT – Notice of Termination

NPDES – National Pollutant Discharge Elimination System

OPRHP – Office of Parks, Recreation and Historic Places

Qf – Extreme Flood

Qp – Overbank Flood

RRv – Runoff Reduction Volume

RWE – Regional Water Engineer

SEQR – State Environmental Quality Review

SEQRA - State Environmental Quality Review Act

SHPA – State Historic Preservation Act

SPDES – State Pollutant Discharge Elimination System

SWPPP – Stormwater Pollution Prevention Plan

TMDL – Total Maximum Daily Load

UPA – Uniform Procedures Act

USDA – United States Department of Agriculture

WQv – Water Quality Volume

## Definitions

All definitions in this section are solely for the purposes of this permit.

**Agricultural Building** – a structure designed and constructed to house farm implements, hay, grain, poultry, livestock or other horticultural products; excluding any structure designed, constructed or used, in whole or in part, for human habitation, as a place of employment where agricultural products are processed, treated or packaged, or as a place used by the public.

**Agricultural Property** – means the land for construction of a barn, *agricultural building*, silo, stockyard, pen or other structural practices identified in Table II in the “Agricultural Management Practices Catalog for Nonpoint Source Pollution in New York State” prepared by the Department in cooperation with agencies of New York Nonpoint Source Coordinating Committee (dated June 2007).

**Alter Hydrology from Pre to Post-Development Conditions** - means the post-development peak flow rate(s) has increased by more than 5% of the pre-developed condition for the design storm of interest (e.g. 10 yr and 100 yr).

**Combined Sewer** - means a sewer that is designed to collect and convey both “sewage” and “stormwater”.

**Commence (Commencement of) Construction Activities** - means the initial disturbance of soils associated with clearing, grading or excavation activities; or other construction related activities that disturb or expose soils such as demolition, stockpiling of fill material, and the initial installation of erosion and sediment control practices required in the SWPPP. See definition for “*Construction Activity(ies)*” also.

**Construction Activity(ies)** - means any clearing, grading, excavation, filling, demolition or stockpiling activities that result in soil disturbance. Clearing activities can include, but are not limited to, logging equipment operation, the cutting and skidding of trees, stump removal and/or brush root removal. Construction activity does not include routine maintenance that is performed to maintain the original line and grade, hydraulic capacity, or original purpose of a facility.

**Construction Site** – means the land area where *construction activity(ies)* will occur. See definition for “*Commence (Commencement of) Construction Activities*” and “*Larger Common Plan of Development or Sale*” also.

**Dewatering** – means the act of draining rainwater and/or groundwater from building foundations, vaults or excavations/trenches.

**Direct Discharge (to a specific surface waterbody)** - means that runoff flows from a *construction site* by overland flow and the first point of discharge is the specific surface waterbody, or runoff flows from a *construction site* to a separate storm sewer system

and the first point of discharge from the separate storm sewer system is the specific surface waterbody.

**Discharge(s)** - means any addition of any pollutant to waters of the State through an outlet or *point source*.

**Embankment** – means an earthen or rock slope that supports a road/highway.

**Endangered or Threatened Species** – see 6 NYCRR Part 182 of the Department’s rules and regulations for definition of terms and requirements.

**Environmental Conservation Law (ECL)** - means chapter 43-B of the Consolidated Laws of the State of New York, entitled the Environmental Conservation Law.

**Equivalent (Equivalence)** – means that the practice or measure meets all the performance, longevity, maintenance, and safety objectives of the technical standard and will provide an equal or greater degree of water quality protection.

**Final Stabilization** - means that all soil disturbance activities have ceased and a uniform, perennial vegetative cover with a density of eighty (80) percent over the entire pervious surface has been established; or other equivalent stabilization measures, such as permanent landscape mulches, rock rip-rap or washed/crushed stone have been applied on all disturbed areas that are not covered by permanent structures, concrete or pavement.

**General SPDES permit** - means a SPDES permit issued pursuant to 6 NYCRR Part 750-1.21 and Section 70-0117 of the ECL authorizing a category of discharges.

**Groundwater(s)** - means waters in the saturated zone. The saturated zone is a subsurface zone in which all the interstices are filled with water under pressure greater than that of the atmosphere. Although the zone may contain gas-filled interstices or interstices filled with fluids other than water, it is still considered saturated.

**Historic Property** – means any building, structure, site, object or district that is listed on the State or National Registers of Historic Places or is determined to be eligible for listing on the State or National Registers of Historic Places.

**Impervious Area (Cover)** - means all impermeable surfaces that cannot effectively infiltrate rainfall. This includes paved, concrete and gravel surfaces (i.e. parking lots, driveways, roads, runways and sidewalks); building rooftops and miscellaneous impermeable structures such as patios, pools, and sheds.

**Infeasible** – means not technologically possible, or not economically practicable and achievable in light of best industry practices.

**Larger Common Plan of Development or Sale** - means a contiguous area where multiple separate and distinct *construction activities* are occurring, or will occur, under one plan. The term “plan” in “larger common plan of development or sale” is broadly defined as any announcement or piece of documentation (including a sign, public notice or hearing, marketing plan, advertisement, drawing, permit application, State Environmental Quality Review Act (SEQRA) environmental assessment form or other documents, zoning request, computer design, etc.) or physical demarcation (including boundary signs, lot stakes, surveyor markings, etc.) indicating that *construction activities* may occur on a specific plot.

For discrete construction projects that are located within a larger common plan of development or sale that are at least 1/4 mile apart, each project can be treated as a separate plan of development or sale provided any interconnecting road, pipeline or utility project that is part of the same “common plan” is not concurrently being disturbed.

**Minimize** – means reduce and/or eliminate to the extent achievable using control measures (including best management practices) that are technologically available and economically practicable and achievable in light of best industry practices.

**Municipal Separate Storm Sewer (MS4)** - a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains):

- (i) Owned or operated by a State, city, town, borough, county, parish, district, association, or other public body (created by or pursuant to State law) having jurisdiction over disposal of sewage, industrial wastes, stormwater, or other wastes, including special districts under State law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under section 208 of the CWA that discharges to surface waters of the State;
- (ii) Designed or used for collecting or conveying stormwater;
- (iii) Which is not a *combined sewer*, and
- (iv) Which is not part of a Publicly Owned Treatment Works (POTW) as defined at 40 CFR 122.2.

**National Pollutant Discharge Elimination System (NPDES)** - means the national system for the issuance of wastewater and stormwater permits under the Federal Water Pollution Control Act (Clean Water Act).

**Natural Buffer** – means an undisturbed area with natural cover running along a surface water (e.g. wetland, stream, river, lake, etc.).

**New Development** – means any land disturbance that does not meet the definition of Redevelopment Activity included in this appendix.



**New York State Erosion and Sediment Control Certificate Program** – a certificate program that establishes and maintains a process to identify and recognize individuals who are capable of developing, designing, inspecting and maintaining erosion and sediment control plans on projects that disturb soils in New York State. The certificate program is administered by the New York State Conservation District Employees Association.

**NOI Acknowledgment Letter** - means the letter that the Department sends to an owner or operator to acknowledge the Department's receipt and acceptance of a complete Notice of Intent. This letter documents the owner's or operator's authorization to discharge in accordance with the general permit for stormwater discharges from *construction activity*.

**Nonpoint Source** - means any source of water pollution or pollutants which is not a discrete conveyance or *point source* permitted pursuant to Title 7 or 8 of Article 17 of the Environmental Conservation Law (see ECL Section 17-1403).

**Overbank** –means flow events that exceed the capacity of the stream channel and spill out into the adjacent floodplain.

**Owner or Operator** - means the person, persons or legal entity which owns or leases the property on which the *construction activity* is occurring; an entity that has operational control over the construction plans and specifications, including the ability to make modifications to the plans and specifications; and/or an entity that has day-to-day operational control of those activities at a project that are necessary to ensure compliance with the permit conditions.

**Performance Criteria** – means the design criteria listed under the “Required Elements” sections in Chapters 5, 6 and 10 of the technical standard, New York State Stormwater Management Design Manual, dated January 2015. It does not include the Sizing Criteria (i.e. WQv, RRv, Cpv, Qp and Qf ) in Part I.C.2. of the permit.

**Point Source** - means any discernible, confined and discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, vessel or other floating craft, or landfill leachate collection system from which *pollutants* are or may be discharged.

**Pollutant** - means dredged spoil, filter backwash, solid waste, incinerator residue, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials, heat, wrecked or discarded equipment, rock, sand and industrial, municipal, agricultural waste and ballast discharged into water; which may cause or might reasonably be expected to cause pollution of the waters of the state in contravention of the standards or guidance values adopted as provided in 6 NYCRR Parts 700 et seq .

**Qualified Inspector** - means a person that is knowledgeable in the principles and practices of erosion and sediment control, such as a licensed Professional Engineer, Certified Professional in Erosion and Sediment Control (CPESC), Registered Landscape Architect, New York State Erosion and Sediment Control Certificate Program holder or other Department endorsed individual(s).

It can also mean someone working under the direct supervision of, and at the same company as, the licensed Professional Engineer or Registered Landscape Architect, provided that person has training in the principles and practices of erosion and sediment control. Training in the principles and practices of erosion and sediment control means that the individual working under the direct supervision of the licensed Professional Engineer or Registered Landscape Architect has received four (4) hours of Department endorsed training in proper erosion and sediment control principles from a Soil and Water Conservation District, or other Department endorsed entity. After receiving the initial training, the individual working under the direct supervision of the licensed Professional Engineer or Registered Landscape Architect shall receive four (4) hours of training every three (3) years.

It can also mean a person that meets the *Qualified Professional* qualifications in addition to the *Qualified Inspector* qualifications.

Note: Inspections of any post-construction stormwater management practices that include structural components, such as a dam for an impoundment, shall be performed by a licensed Professional Engineer.

**Qualified Professional** - means a person that is knowledgeable in the principles and practices of stormwater management and treatment, such as a licensed Professional Engineer, Registered Landscape Architect or other Department endorsed individual(s). Individuals preparing SWPPPs that require the post-construction stormwater management practice component must have an understanding of the principles of hydrology, water quality management practice design, water quantity control design, and, in many cases, the principles of hydraulics. All components of the SWPPP that involve the practice of engineering, as defined by the NYS Education Law (see Article 145), shall be prepared by, or under the direct supervision of, a professional engineer licensed to practice in the State of New York.

**Redevelopment Activity(ies)** – means the disturbance and reconstruction of existing impervious area, including impervious areas that were removed from a project site within five (5) years of preliminary project plan submission to the local government (i.e. site plan, subdivision, etc.).

**Regulated, Traditional Land Use Control MS4** - means a city, town or village with land use control authority that is authorized to discharge under New York State DEC's

SPDES General Permit For Stormwater Discharges from Municipal Separate Stormwater Sewer Systems (MS4s) or the City of New York's Individual SPDES Permit for their Municipal Separate Storm Sewer Systems (NY-0287890).

**Routine Maintenance Activity** - means *construction activity* that is performed to maintain the original line and grade, hydraulic capacity, or original purpose of a facility, including, but not limited to:

- Re-grading of gravel roads or parking lots,
- Cleaning and shaping of existing roadside ditches and culverts that maintains the approximate original line and grade, and hydraulic capacity of the ditch,
- Cleaning and shaping of existing roadside ditches that does not maintain the approximate original grade, hydraulic capacity and purpose of the ditch if the changes to the line and grade, hydraulic capacity or purpose of the ditch are installed to improve water quality and quantity controls (e.g. installing grass lined ditch),
- Placement of aggregate shoulder backing that stabilizes the transition between the road shoulder and the ditch or *embankment*,
- Full depth milling and filling of existing asphalt pavements, replacement of concrete pavement slabs, and similar work that does not expose soil or disturb the bottom six (6) inches of subbase material,
- Long-term use of equipment storage areas at or near highway maintenance facilities,
- Removal of sediment from the edge of the highway to restore a previously existing sheet-flow drainage connection from the highway surface to the highway ditch or *embankment*,
- Existing use of Canal Corp owned upland disposal sites for the canal, and
- Replacement of curbs, gutters, sidewalks and guide rail posts.

**Site limitations** – means site conditions that prevent the use of an infiltration technique and or infiltration of the total WQv. Typical site limitations include: seasonal high groundwater, shallow depth to bedrock, and soils with an infiltration rate less than 0.5 inches/hour. The existence of site limitations shall be confirmed and documented using actual field testing (i.e. test pits, soil borings, and infiltration test) or using information from the most current United States Department of Agriculture (USDA) Soil Survey for the County where the project is located.

**Sizing Criteria** – means the criteria included in Part I.C.2 of the permit that are used to size post-construction stormwater management control practices. The criteria include; Water Quality Volume (WQv), Runoff Reduction Volume (RRv), Channel Protection Volume (Cpv), *Overbank Flood* (Qp), and Extreme Flood (Qf).

**State Pollutant Discharge Elimination System (SPDES)** - means the system established pursuant to Article 17 of the ECL and 6 NYCRR Part 750 for issuance of permits authorizing discharges to the waters of the state.

**Steep Slope** – means land area designated on the current United States Department of Agriculture (“USDA”) Soil Survey as Soil Slope Phase “D”, (provided the map unit name is inclusive of slopes greater than 25%) , or Soil Slope Phase E or F, (regardless of the map unit name), or a combination of the three designations.

**Streambank** – as used in this permit, means the terrain alongside the bed of a creek or stream. The bank consists of the sides of the channel, between which the flow is confined.

**Stormwater Pollution Prevention Plan (SWPPP)** – means a project specific report, including construction drawings, that among other things: describes the construction activity(ies), identifies the potential sources of pollution at the *construction site*; describes and shows the stormwater controls that will be used to control the pollutants (i.e. erosion and sediment controls; for many projects, includes post-construction stormwater management controls); and identifies procedures the *owner or operator* will implement to comply with the terms and conditions of the permit. See Part III of the permit for a complete description of the information that must be included in the SWPPP.

**Surface Waters of the State** - shall be construed to include lakes, bays, sounds, ponds, impounding reservoirs, springs, rivers, streams, creeks, estuaries, marshes, inlets, canals, the Atlantic ocean within the territorial seas of the state of New York and all other bodies of surface water, natural or artificial, inland or coastal, fresh or salt, public or private (except those private waters that do not combine or effect a junction with natural surface waters), which are wholly or partially within or bordering the state or within its jurisdiction. Waters of the state are further defined in 6 NYCRR Parts 800 to 941.

**Temporarily Ceased** – means that an existing disturbed area will not be disturbed again within 14 calendar days of the previous soil disturbance.

**Temporary Stabilization** - means that exposed soil has been covered with material(s) as set forth in the technical standard, New York Standards and Specifications for Erosion and Sediment Control, to prevent the exposed soil from eroding. The materials can include, but are not limited to, mulch, seed and mulch, and erosion control mats (e.g. jute twisted yarn, excelsior wood fiber mats).

**Total Maximum Daily Loads (TMDLs)** - A TMDL is the sum of the allowable loads of a single pollutant from all contributing point and *nonpoint sources*. It is a calculation of the maximum amount of a pollutant that a waterbody can receive on a daily basis and still meet *water quality standards*, and an allocation of that amount to the pollutant's sources. A TMDL stipulates wasteload allocations (WLAs) for *point source* discharges, load allocations (LAs) for *nonpoint sources*, and a margin of safety (MOS).

**Trained Contractor** - means an employee from the contracting (construction) company, identified in Part III.A.6., that has received four (4) hours of Department endorsed

training in proper erosion and sediment control principles from a Soil and Water Conservation District, or other Department endorsed entity. After receiving the initial training, the *trained contractor* shall receive four (4) hours of training every three (3) years.

It can also mean an employee from the contracting (construction) company, identified in Part III.A.6., that meets the *qualified inspector* qualifications (e.g. licensed Professional Engineer, Certified Professional in Erosion and Sediment Control (CPESC), Registered Landscape Architect, New York State Erosion and Sediment Control Certificate Program holder, or someone working under the direct supervision of, and at the same company as, the licensed Professional Engineer or Registered Landscape Architect, provided they have received four (4) hours of Department endorsed training in proper erosion and sediment control principles from a Soil and Water Conservation District, or other Department endorsed entity).

The *trained contractor* is responsible for the day to day implementation of the SWPPP.

**Uniform Procedures Act (UPA) Permit** - means a permit required under 6 NYCRR Part 621 of the Environmental Conservation Law (ECL), Article 70.

**Water Quality Standard** - means such measures of purity or quality for any waters in relation to their reasonable and necessary use as promulgated in 6 NYCRR Part 700 et seq.

## APPENDIX B – Required SWPPP Components by Project Type

**Table 1**  
**Construction Activities that Require the Preparation of a SWPPP That Only Includes Erosion and Sediment Controls**

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p><b>The following construction activities that involve soil disturbances of one (1) or more acres of land, but less than five (5) acres:</b></p> <ul style="list-style-type: none"><li>• Single family home <u>not</u> located in one of the watersheds listed in Appendix C or <u>not directly discharging</u> to one of the 303(d) segments listed in Appendix E</li><li>• Single family residential subdivisions with 25% or less impervious cover at total site build-out and <u>not</u> located in one of the watersheds listed in Appendix C and <u>not</u> directly discharging to one of the 303(d) segments listed in Appendix E</li><li>• Construction of a barn or other <i>agricultural building</i>, silo, stock yard or pen.</li></ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <p><b>The following construction activities that involve soil disturbances between five thousand (5000) square feet and one (1) acre of land:</b></p> <p>All construction activities located in the watersheds identified in Appendix D that involve soil disturbances between five thousand (5,000) square feet and one (1) acre of land.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <p><b>The following construction activities that involve soil disturbances of one (1) or more acres of land:</b></p> <ul style="list-style-type: none"><li>• Installation of underground, linear utilities; such as gas lines, fiber-optic cable, cable TV, electric, telephone, sewer mains, and water mains</li><li>• Environmental enhancement projects, such as wetland mitigation projects, stormwater retrofits and stream restoration projects</li><li>• Pond construction</li><li>• Linear bike paths running through areas with vegetative cover, including bike paths surfaced with an impervious cover</li><li>• Cross-country ski trails and walking/hiking trails</li><li>• Sidewalk, bike path or walking path projects, surfaced with an impervious cover, that are not part of residential, commercial or institutional development;</li><li>• Sidewalk, bike path or walking path projects, surfaced with an impervious cover, that include incidental shoulder or curb work along an existing highway to support construction of the sidewalk, bike path or walking path.</li><li>• Slope stabilization projects</li><li>• Slope flattening that changes the grade of the site, but does not significantly change the runoff characteristics</li></ul> |

**Table 1 (Continued) CONSTRUCTION ACTIVITIES THAT REQUIRE THE PREPARATION OF A SWPPP THAT ONLY INCLUDES EROSION AND SEDIMENT CONTROLS**

**The following construction activities that involve soil disturbances of one (1) or more acres of land:**

- Spoil areas that will be covered with vegetation
- Vegetated open space projects (i.e. recreational parks, lawns, meadows, fields, downhill ski trails) excluding projects that *alter hydrology from pre to post development* conditions,
- Athletic fields (natural grass) that do not include the construction or reconstruction of *impervious area* and do not *alter hydrology from pre to post development* conditions
- Demolition project where vegetation will be established, and no redevelopment is planned
- Overhead electric transmission line project that does not include the construction of permanent access roads or parking areas surfaced with *impervious cover*
- Structural practices as identified in Table II in the “Agricultural Management Practices Catalog for Nonpoint Source Pollution in New York State”, excluding projects that involve soil disturbances of greater than five acres and construction activities that include the construction or reconstruction of impervious area
- Temporary access roads, median crossovers, detour roads, lanes, or other temporary impervious areas that will be restored to pre-construction conditions once the construction activity is complete

**Table 2**  
**CONSTRUCTION ACTIVITIES THAT REQUIRE THE PREPARATION OF A SWPPP THAT INCLUDES**  
**POST-CONSTRUCTION STORMWATER MANAGEMENT PRACTICES**

**The following construction activities that involve soil disturbances of one (1) or more acres of land:**

- Single family home located in one of the watersheds listed in Appendix C or *directly discharging* to one of the 303(d) segments listed in Appendix E
- Single family home that disturbs five (5) or more acres of land
- Single family residential subdivisions located in one of the watersheds listed in Appendix C or *directly discharging* to one of the 303(d) segments listed in Appendix E
- Single family residential subdivisions that involve soil disturbances of between one (1) and five (5) acres of land with greater than 25% impervious cover at total site build-out
- Single family residential subdivisions that involve soil disturbances of five (5) or more acres of land, and single family residential subdivisions that involve soil disturbances of less than five (5) acres that are part of a larger common plan of development or sale that will ultimately disturb five or more acres of land
- Multi-family residential developments; includes duplexes, townhomes, condominiums, senior housing complexes, apartment complexes, and mobile home parks
- Airports
- Amusement parks
- Breweries, cideries, and wineries, including establishments constructed on agricultural land
- Campgrounds
- Cemeteries that include the construction or reconstruction of impervious area (>5% of disturbed area) or *alter the hydrology from pre to post development* conditions
- Commercial developments
- Churches and other places of worship
- Construction of a barn or other *agricultural building* (e.g. silo) and structural practices as identified in Table II in the "Agricultural Management Practices Catalog for Nonpoint Source Pollution in New York State" that include the construction or reconstruction of *impervious area*, excluding projects that involve soil disturbances of less than five acres.
- Golf courses
- Institutional development; includes hospitals, prisons, schools and colleges
- Industrial facilities; includes industrial parks
- Landfills
- Municipal facilities; includes highway garages, transfer stations, office buildings, POTW's, water treatment plants, and water storage tanks
- Office complexes
- Playgrounds that include the construction or reconstruction of impervious area
- Sports complexes
- Racetracks; includes racetracks with earthen (dirt) surface
- Road construction or reconstruction, including roads constructed as part of the construction activities listed in Table 1



Table 2 (Continued)

**CONSTRUCTION ACTIVITIES THAT REQUIRE THE PREPARATION OF A SWPPP THAT INCLUDES POST-CONSTRUCTION STORMWATER MANAGEMENT PRACTICES**

The following construction activities that involve soil disturbances of one (1) or more acres of land:

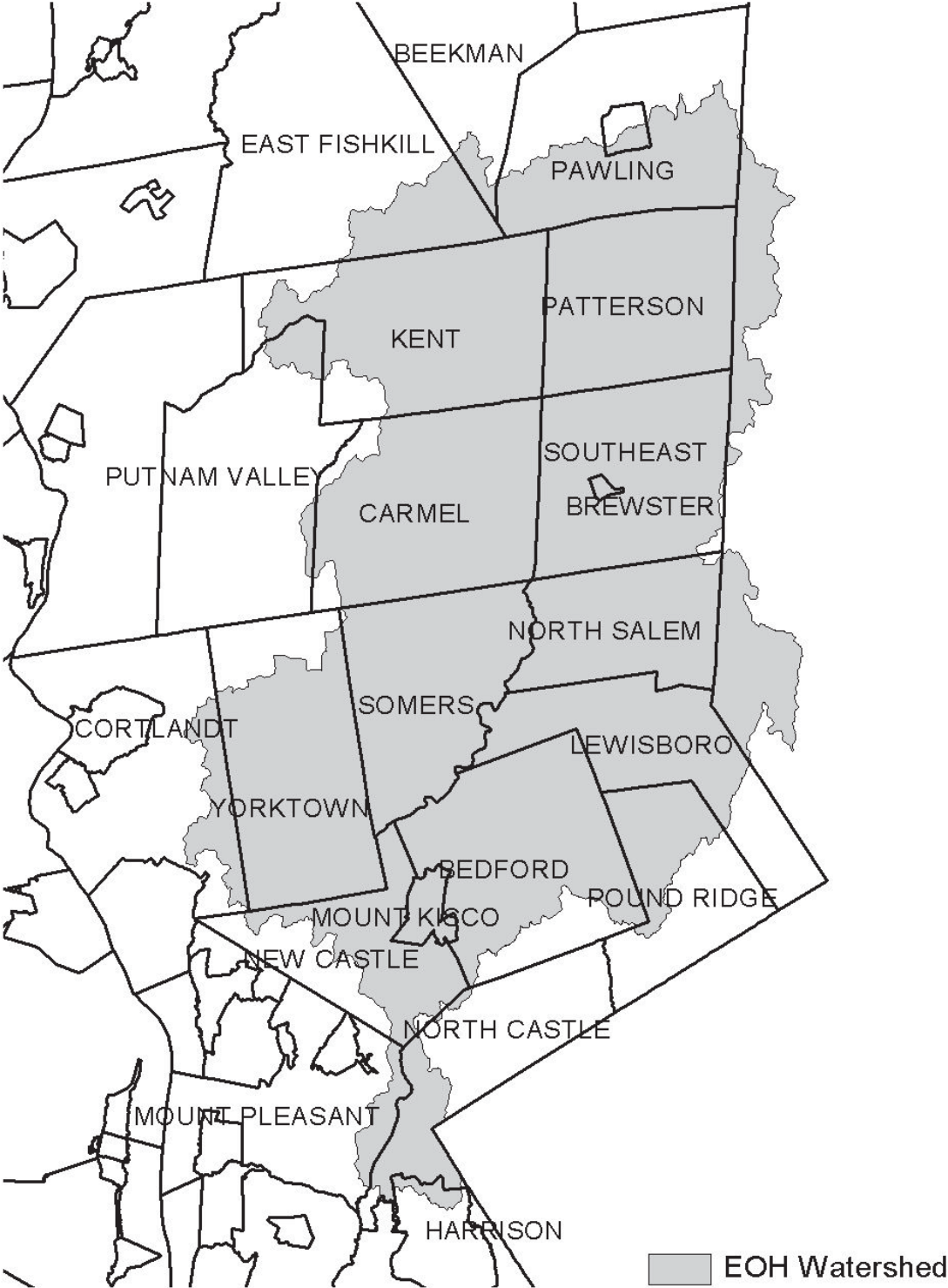
- Parking lot construction or reconstruction, including parking lots constructed as part of the construction activities listed in Table 1
- Athletic fields (natural grass) that include the construction or reconstruction of impervious area (>5% of disturbed area) or *alter the hydrology from pre to post development* conditions
- Athletic fields with artificial turf
- Permanent access roads, parking areas, substations, compressor stations and well drilling pads, surfaced with *impervious cover*, and constructed as part of an over-head electric transmission line project, wind-power project, cell tower project, oil or gas well drilling project, sewer or water main project or other linear utility project
- Sidewalk, bike path or walking path projects, surfaced with an impervious cover, that are part of a residential, commercial or institutional development
- Sidewalk, bike path or walking path projects, surfaced with an impervious cover, that are part of a highway construction or reconstruction project
- All other construction activities that include the construction or reconstruction of *impervious area* or *alter the hydrology from pre to post development* conditions, and are not listed in Table 1

## APPENDIX C – Watersheds Requiring Enhanced Phosphorus Removal

**Watersheds where *owners or operators* of construction activities identified in Table 2 of Appendix B must prepare a SWPPP that includes post-construction stormwater management practices designed in conformance with the Enhanced Phosphorus Removal Standards included in the technical standard, New York State Stormwater Management Design Manual (“Design Manual”).**

- Entire New York City Watershed located east of the Hudson River - Figure 1
- Onondaga Lake Watershed - Figure 2
- Greenwood Lake Watershed -Figure 3
- Oscawana Lake Watershed – Figure 4
- Kinderhook Lake Watershed – Figure 5

**Figure 1 - New York City Watershed East of the Hudson**



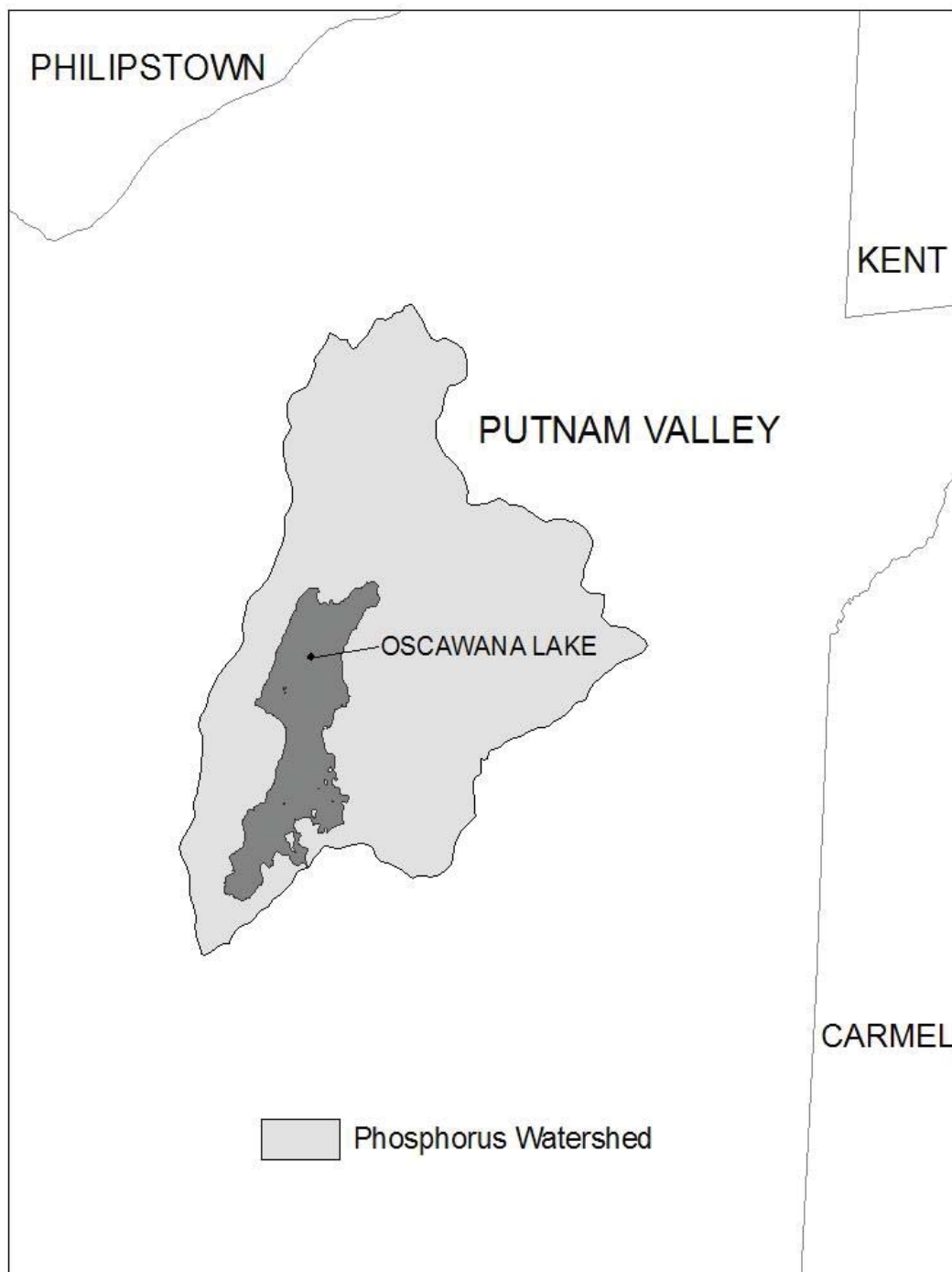
**Figure 2 - Onondaga Lake Watershed**



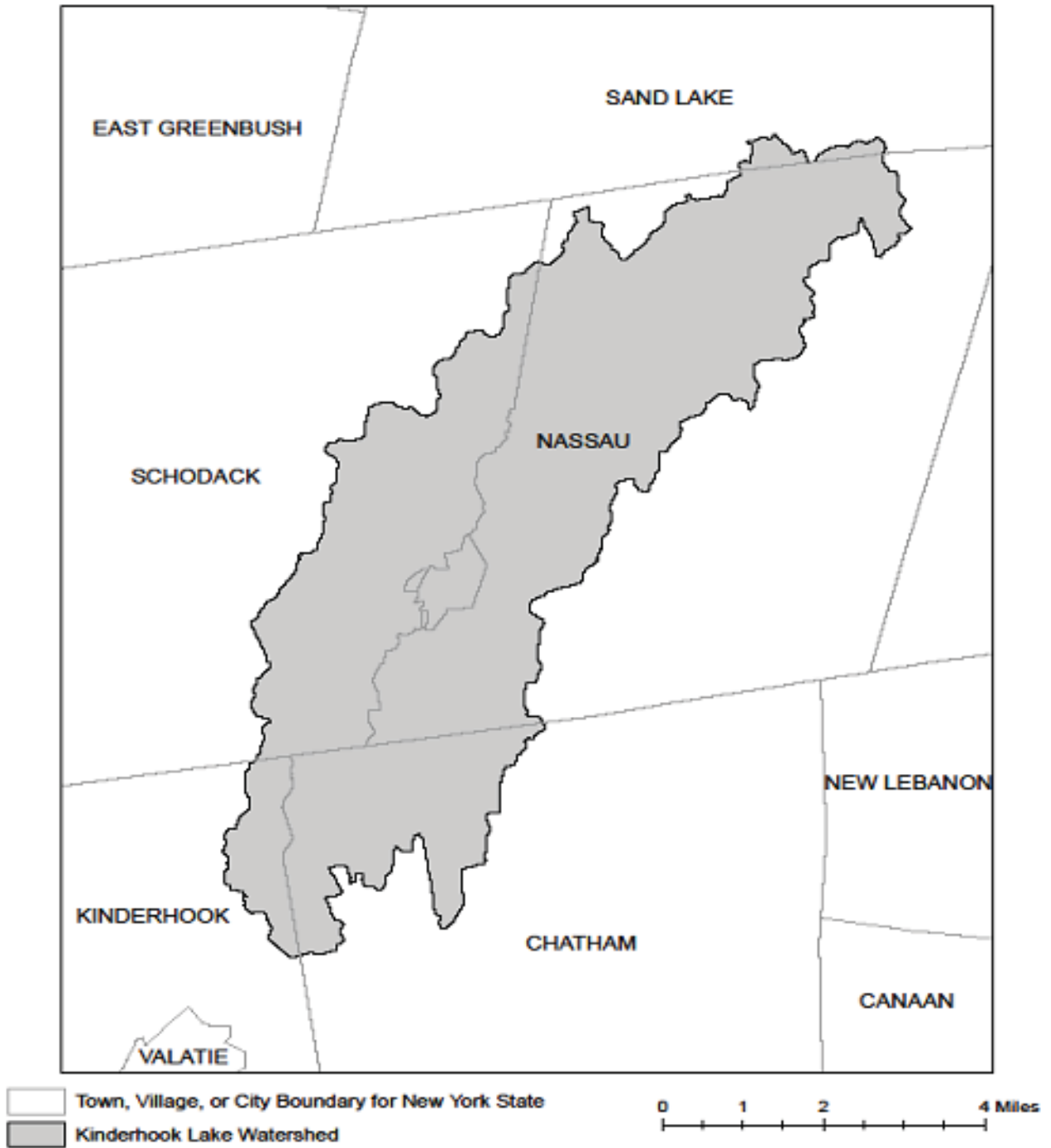
**Figure 3 - Greenwood Lake Watershed**



**Figure 4 - Oscawana Lake Watershed**



**Figure 5 - Kinderhook Lake Watershed**



## **APPENDIX D – Watersheds with Lower Disturbance Threshold**

**Watersheds where *owners or operators* of construction activities that involve soil disturbances between five thousand (5000) square feet and one (1) acre of land must obtain coverage under this permit.**

Entire New York City Watershed that is located east of the Hudson River - See Figure 1 in Appendix C



## APPENDIX E – 303(d) Segments Impaired by Construction Related Pollutant(s)

List of 303(d) segments impaired by pollutants related to *construction activity* (e.g. silt, sediment or nutrients). The list was developed using "The Final New York State 2016 Section 303(d) List of Impaired Waters Requiring a TMDL/Other Strategy" dated November 2016. *Owners or operators* of single family home and single family residential subdivisions with 25% or less total impervious cover at total site build-out that involve soil disturbances of one or more acres of land, but less than 5 acres, and *directly discharge* to one of the listed segments below shall prepare a SWPPP that includes post-construction stormwater management practices designed in conformance with the New York State Stormwater Management Design Manual ("Design Manual"), dated January 2015.

| COUNTY      | WATERBODY                                | POLLUTANT     |
|-------------|------------------------------------------|---------------|
| Albany      | Ann Lee (Shakers) Pond, Stump Pond       | Nutrients     |
| Albany      | Basic Creek Reservoir                    | Nutrients     |
| Allegany    | Amity Lake, Saunders Pond                | Nutrients     |
| Bronx       | Long Island Sound, Bronx                 | Nutrients     |
| Bronx       | Van Cortlandt Lake                       | Nutrients     |
| Broome      | Fly Pond, Deer Lake, Sky Lake            | Nutrients     |
| Broome      | Minor Tribs to Lower Susquehanna (north) | Nutrients     |
| Broome      | Whitney Point Lake/Reservoir             | Nutrients     |
| Cattaraugus | Allegheny River/Reservoir                | Nutrients     |
| Cattaraugus | Beaver (Alma) Lake                       | Nutrients     |
| Cattaraugus | Case Lake                                | Nutrients     |
| Cattaraugus | Linlyco/Club Pond                        | Nutrients     |
| Cayuga      | Duck Lake                                | Nutrients     |
| Cayuga      | Little Sodus Bay                         | Nutrients     |
| Chautauqua  | Bear Lake                                | Nutrients     |
| Chautauqua  | Chadakoin River and tribs                | Nutrients     |
| Chautauqua  | Chautauqua Lake, North                   | Nutrients     |
| Chautauqua  | Chautauqua Lake, South                   | Nutrients     |
| Chautauqua  | Findley Lake                             | Nutrients     |
| Chautauqua  | Hulburt/Clymer Pond                      | Nutrients     |
| Clinton     | Great Chazy River, Lower, Main Stem      | Silt/Sediment |
| Clinton     | Lake Champlain, Main Lake, Middle        | Nutrients     |
| Clinton     | Lake Champlain, Main Lake, North         | Nutrients     |
| Columbia    | Kinderhook Lake                          | Nutrients     |
| Columbia    | Robinson Pond                            | Nutrients     |
| Cortland    | Dean Pond                                | Nutrients     |

### 303(d) Segments Impaired by Construction Related Pollutant(s)

|            |                                         |               |
|------------|-----------------------------------------|---------------|
| Dutchess   | Fall Kill and tribs                     | Nutrients     |
| Dutchess   | Hillside Lake                           | Nutrients     |
| Dutchess   | Wappingers Lake                         | Nutrients     |
| Dutchess   | Wappingers Lake                         | Silt/Sediment |
| Erie       | Beeman Creek and tribs                  | Nutrients     |
| Erie       | Ellicott Creek, Lower, and tribs        | Silt/Sediment |
| Erie       | Ellicott Creek, Lower, and tribs        | Nutrients     |
| Erie       | Green Lake                              | Nutrients     |
| Erie       | Little Sister Creek, Lower, and tribs   | Nutrients     |
| Erie       | Murder Creek, Lower, and tribs          | Nutrients     |
| Erie       | Rush Creek and tribs                    | Nutrients     |
| Erie       | Scajaquada Creek, Lower, and tribs      | Nutrients     |
| Erie       | Scajaquada Creek, Middle, and tribs     | Nutrients     |
| Erie       | Scajaquada Creek, Upper, and tribs      | Nutrients     |
| Erie       | South Branch Smoke Cr, Lower, and tribs | Silt/Sediment |
| Erie       | South Branch Smoke Cr, Lower, and tribs | Nutrients     |
| Essex      | Lake Champlain, Main Lake, South        | Nutrients     |
| Essex      | Lake Champlain, South Lake              | Nutrients     |
| Essex      | Willsboro Bay                           | Nutrients     |
| Genesee    | Bigelow Creek and tribs                 | Nutrients     |
| Genesee    | Black Creek, Middle, and minor tribs    | Nutrients     |
| Genesee    | Black Creek, Upper, and minor tribs     | Nutrients     |
| Genesee    | Bowen Brook and tribs                   | Nutrients     |
| Genesee    | LeRoy Reservoir                         | Nutrients     |
| Genesee    | Oak Orchard Cr, Upper, and tribs        | Nutrients     |
| Genesee    | Tonawanda Creek, Middle, Main Stem      | Nutrients     |
| Greene     | Schoharie Reservoir                     | Silt/Sediment |
| Greene     | Sleepy Hollow Lake                      | Silt/Sediment |
| Herkimer   | Steele Creek tribs                      | Silt/Sediment |
| Herkimer   | Steele Creek tribs                      | Nutrients     |
| Jefferson  | Moon Lake                               | Nutrients     |
| Kings      | Hendrix Creek                           | Nutrients     |
| Kings      | Prospect Park Lake                      | Nutrients     |
| Lewis      | Mill Creek/South Branch, and tribs      | Nutrients     |
| Livingston | Christie Creek and tribs                | Nutrients     |
| Livingston | Conesus Lake                            | Nutrients     |
| Livingston | Mill Creek and minor tribs              | Silt/Sediment |
| Monroe     | Black Creek, Lower, and minor tribs     | Nutrients     |
| Monroe     | Buck Pond                               | Nutrients     |
| Monroe     | Cranberry Pond                          | Nutrients     |

### 303(d) Segments Impaired by Construction Related Pollutant(s)

|          |                                          |               |
|----------|------------------------------------------|---------------|
| Monroe   | Lake Ontario Shoreline, Western          | Nutrients     |
| Monroe   | Long Pond                                | Nutrients     |
| Monroe   | Mill Creek and tribs                     | Nutrients     |
| Monroe   | Mill Creek/Blue Pond Outlet and tribs    | Nutrients     |
| Monroe   | Minor Tribs to Irondequoit Bay           | Nutrients     |
| Monroe   | Rochester Embayment - East               | Nutrients     |
| Monroe   | Rochester Embayment - West               | Nutrients     |
| Monroe   | Shipbuilders Creek and tribs             | Nutrients     |
| Monroe   | Thomas Creek/White Brook and tribs       | Nutrients     |
| Nassau   | Beaver Lake                              | Nutrients     |
| Nassau   | Camaans Pond                             | Nutrients     |
| Nassau   | East Meadow Brook, Upper, and tribs      | Silt/Sediment |
| Nassau   | East Rockaway Channel                    | Nutrients     |
| Nassau   | Grant Park Pond                          | Nutrients     |
| Nassau   | Hempstead Bay                            | Nutrients     |
| Nassau   | Hempstead Lake                           | Nutrients     |
| Nassau   | Hewlett Bay                              | Nutrients     |
| Nassau   | Hog Island Channel                       | Nutrients     |
| Nassau   | Long Island Sound, Nassau County Waters  | Nutrients     |
| Nassau   | Massapequa Creek and tribs               | Nutrients     |
| Nassau   | Milburn/Parsonage Creeks, Upp, and tribs | Nutrients     |
| Nassau   | Reynolds Channel, west                   | Nutrients     |
| Nassau   | Tidal Tribs to Hempstead Bay             | Nutrients     |
| Nassau   | Tribs (fresh) to East Bay                | Nutrients     |
| Nassau   | Tribs (fresh) to East Bay                | Silt/Sediment |
| Nassau   | Tribs to Smith/Halls Ponds               | Nutrients     |
| Nassau   | Woodmere Channel                         | Nutrients     |
| New York | Harlem Meer                              | Nutrients     |
| New York | The Lake in Central Park                 | Nutrients     |
| Niagara  | Bergholtz Creek and tribs                | Nutrients     |
| Niagara  | Hyde Park Lake                           | Nutrients     |
| Niagara  | Lake Ontario Shoreline, Western          | Nutrients     |
| Niagara  | Lake Ontario Shoreline, Western          | Nutrients     |
| Oneida   | Ballou, Nail Creeks and tribs            | Nutrients     |
| Onondaga | Harbor Brook, Lower, and tribs           | Nutrients     |
| Onondaga | Ley Creek and tribs                      | Nutrients     |
| Onondaga | Minor Tribs to Onondaga Lake             | Nutrients     |
| Onondaga | Ninemile Creek, Lower, and tribs         | Nutrients     |
| Onondaga | Onondaga Creek, Lower, and tribs         | Nutrients     |
| Onondaga | Onondaga Creek, Middle, and tribs        | Nutrients     |

### 303(d) Segments Impaired by Construction Related Pollutant(s)

|            |                                          |               |
|------------|------------------------------------------|---------------|
| Onondaga   | Onondaga Lake, northern end              | Nutrients     |
| Onondaga   | Onondaga Lake, southern end              | Nutrients     |
| Ontario    | Great Brook and minor tribs              | Silt/Sediment |
| Ontario    | Great Brook and minor tribs              | Nutrients     |
| Ontario    | Hemlock Lake Outlet and minor tribs      | Nutrients     |
| Ontario    | Honeoye Lake                             | Nutrients     |
| Orange     | Greenwood Lake                           | Nutrients     |
| Orange     | Monhagen Brook and tribs                 | Nutrients     |
| Orange     | Orange Lake                              | Nutrients     |
| Orleans    | Lake Ontario Shoreline, Western          | Nutrients     |
| Orleans    | Lake Ontario Shoreline, Western          | Nutrients     |
| Oswego     | Lake Neatahwanta                         | Nutrients     |
| Oswego     | Pleasant Lake                            | Nutrients     |
| Putnam     | Bog Brook Reservoir                      | Nutrients     |
| Putnam     | Boyd Corners Reservoir                   | Nutrients     |
| Putnam     | Croton Falls Reservoir                   | Nutrients     |
| Putnam     | Diverting Reservoir                      | Nutrients     |
| Putnam     | East Branch Reservoir                    | Nutrients     |
| Putnam     | Lake Carmel                              | Nutrients     |
| Putnam     | Middle Branch Reservoir                  | Nutrients     |
| Putnam     | Oscawana Lake                            | Nutrients     |
| Putnam     | Palmer Lake                              | Nutrients     |
| Putnam     | West Branch Reservoir                    | Nutrients     |
| Queens     | Bergen Basin                             | Nutrients     |
| Queens     | Flushing Creek/Bay                       | Nutrients     |
| Queens     | Jamaica Bay, Eastern, and tribs (Queens) | Nutrients     |
| Queens     | Kissena Lake                             | Nutrients     |
| Queens     | Meadow Lake                              | Nutrients     |
| Queens     | Willow Lake                              | Nutrients     |
| Rensselaer | Nassau Lake                              | Nutrients     |
| Rensselaer | Snyders Lake                             | Nutrients     |
| Richmond   | Grasmere Lake/Bradys Pond                | Nutrients     |
| Rockland   | Congers Lake, Swartout Lake              | Nutrients     |
| Rockland   | Rockland Lake                            | Nutrients     |
| Saratoga   | Ballston Lake                            | Nutrients     |
| Saratoga   | Dwaas Kill and tribs                     | Silt/Sediment |
| Saratoga   | Dwaas Kill and tribs                     | Nutrients     |
| Saratoga   | Lake Lonely                              | Nutrients     |
| Saratoga   | Round Lake                               | Nutrients     |
| Saratoga   | Tribs to Lake Lonely                     | Nutrients     |

### 303(d) Segments Impaired by Construction Related Pollutant(s)

|             |                                         |               |
|-------------|-----------------------------------------|---------------|
| Schenectady | Collins Lake                            | Nutrients     |
| Schenectady | Duane Lake                              | Nutrients     |
| Schenectady | Mariaville Lake                         | Nutrients     |
| Schoharie   | Engleville Pond                         | Nutrients     |
| Schoharie   | Summit Lake                             | Nutrients     |
| Seneca      | Reeder Creek and tribs                  | Nutrients     |
| St.Lawrence | Black Lake Outlet/Black Lake            | Nutrients     |
| St.Lawrence | Fish Creek and minor tribs              | Nutrients     |
| Steuben     | Smith Pond                              | Nutrients     |
| Suffolk     | Agawam Lake                             | Nutrients     |
| Suffolk     | Big/Little Fresh Ponds                  | Nutrients     |
| Suffolk     | Canaan Lake                             | Silt/Sediment |
| Suffolk     | Canaan Lake                             | Nutrients     |
| Suffolk     | Flanders Bay, West/Lower Sawmill Creek  | Nutrients     |
| Suffolk     | Fresh Pond                              | Nutrients     |
| Suffolk     | Great South Bay, East                   | Nutrients     |
| Suffolk     | Great South Bay, Middle                 | Nutrients     |
| Suffolk     | Great South Bay, West                   | Nutrients     |
| Suffolk     | Lake Ronkonkoma                         | Nutrients     |
| Suffolk     | Long Island Sound, Suffolk County, West | Nutrients     |
| Suffolk     | Mattituck (Marratooka) Pond             | Nutrients     |
| Suffolk     | Meetinghouse/Terrys Creeks and tribs    | Nutrients     |
| Suffolk     | Mill and Seven Ponds                    | Nutrients     |
| Suffolk     | Millers Pond                            | Nutrients     |
| Suffolk     | Moriches Bay, East                      | Nutrients     |
| Suffolk     | Moriches Bay, West                      | Nutrients     |
| Suffolk     | Peconic River, Lower, and tidal tribs   | Nutrients     |
| Suffolk     | Quantuck Bay                            | Nutrients     |
| Suffolk     | Shinnecock Bay and Inlet                | Nutrients     |
| Suffolk     | Tidal tribs to West Moriches Bay        | Nutrients     |
| Sullivan    | Bodine, Montgomery Lakes                | Nutrients     |
| Sullivan    | Davies Lake                             | Nutrients     |
| Sullivan    | Evens Lake                              | Nutrients     |
| Sullivan    | Pleasure Lake                           | Nutrients     |
| Tompkins    | Cayuga Lake, Southern End               | Nutrients     |
| Tompkins    | Cayuga Lake, Southern End               | Silt/Sediment |
| Tompkins    | Owasco Inlet, Upper, and tribs          | Nutrients     |
| Ulster      | Ashokan Reservoir                       | Silt/Sediment |
| Ulster      | Esopus Creek, Upper, and minor tribs    | Silt/Sediment |
| Warren      | Hague Brook and tribs                   | Silt/Sediment |

### 303(d) Segments Impaired by Construction Related Pollutant(s)

|             |                                          |               |
|-------------|------------------------------------------|---------------|
| Warren      | Huddle/Finkle Brooks and tribs           | Silt/Sediment |
| Warren      | Indian Brook and tribs                   | Silt/Sediment |
| Warren      | Lake George                              | Silt/Sediment |
| Warren      | Tribs to L.George, Village of L George   | Silt/Sediment |
| Washington  | Cossayuna Lake                           | Nutrients     |
| Washington  | Lake Champlain, South Bay                | Nutrients     |
| Washington  | Tribs to L.George, East Shore            | Silt/Sediment |
| Washington  | Wood Cr/Champlain Canal and minor tribs  | Nutrients     |
| Wayne       | Port Bay                                 | Nutrients     |
| Westchester | Amawalk Reservoir                        | Nutrients     |
| Westchester | Blind Brook, Upper, and tribs            | Silt/Sediment |
| Westchester | Cross River Reservoir                    | Nutrients     |
| Westchester | Lake Katonah                             | Nutrients     |
| Westchester | Lake Lincolndale                         | Nutrients     |
| Westchester | Lake Meahagh                             | Nutrients     |
| Westchester | Lake Mohegan                             | Nutrients     |
| Westchester | Lake Shenorock                           | Nutrients     |
| Westchester | Long Island Sound, Westchester (East)    | Nutrients     |
| Westchester | Mamaroneck River, Lower                  | Silt/Sediment |
| Westchester | Mamaroneck River, Upper, and minor tribs | Silt/Sediment |
| Westchester | Muscoot/Upper New Croton Reservoir       | Nutrients     |
| Westchester | New Croton Reservoir                     | Nutrients     |
| Westchester | Peach Lake                               | Nutrients     |
| Westchester | Reservoir No.1 (Lake Isle)               | Nutrients     |
| Westchester | Saw Mill River, Lower, and tribs         | Nutrients     |
| Westchester | Saw Mill River, Middle, and tribs        | Nutrients     |
| Westchester | Sheldrake River and tribs                | Silt/Sediment |
| Westchester | Sheldrake River and tribs                | Nutrients     |
| Westchester | Silver Lake                              | Nutrients     |
| Westchester | Teatown Lake                             | Nutrients     |
| Westchester | Titicus Reservoir                        | Nutrients     |
| Westchester | Truesdale Lake                           | Nutrients     |
| Westchester | Wallace Pond                             | Nutrients     |
| Wyoming     | Java Lake                                | Nutrients     |
| Wyoming     | Silver Lake                              | Nutrients     |

## APPENDIX F – List of NYS DEC Regional Offices

| <u>Region</u> | <u>COVERING THE FOLLOWING COUNTIES:</u>                                                            | <u>DIVISION OF ENVIRONMENTAL PERMITS (DEP) PERMIT ADMINISTRATORS</u>                               | <u>DIVISION OF WATER (DOW) WATER (SPDES) PROGRAM</u>                                               |
|---------------|----------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|
| 1             | NASSAU AND SUFFOLK                                                                                 | 50 CIRCLE ROAD<br>STONY BROOK, NY 11790<br>TEL. (631) 444-0365                                     | 50 CIRCLE ROAD<br>STONY BROOK, NY 11790-3409<br>TEL. (631) 444-0405                                |
| 2             | BRONX, KINGS, NEW YORK, QUEENS AND RICHMOND                                                        | 1 HUNTERS POINT PLAZA,<br>47-40 21ST ST.<br>LONG ISLAND CITY, NY 11101-5407<br>TEL. (718) 482-4997 | 1 HUNTERS POINT PLAZA,<br>47-40 21ST ST.<br>LONG ISLAND CITY, NY 11101-5407<br>TEL. (718) 482-4933 |
| 3             | DUTCHESS, ORANGE, PUTNAM, ROCKLAND, SULLIVAN, ULSTER AND WESTCHESTER                               | 21 SOUTH PUTT CORNERS ROAD<br>NEW PALTZ, NY 12561-1696<br>TEL. (845) 256-3059                      | 100 HILLSIDE AVENUE, SUITE 1W<br>WHITE PLAINS, NY 10603<br>TEL. (914) 428 - 2505                   |
| 4             | ALBANY, COLUMBIA, DELAWARE, GREENE, MONTGOMERY, OTSEGO, RENSSELAER, SCHENECTADY AND SCHOHARIE      | 1150 NORTH WESTCOTT ROAD<br>SCHENECTADY, NY 12306-2014<br>TEL. (518) 357-2069                      | 1130 NORTH WESTCOTT ROAD<br>SCHENECTADY, NY 12306-2014<br>TEL. (518) 357-2045                      |
| 5             | CLINTON, ESSEX, FRANKLIN, FULTON, HAMILTON, SARATOGA, WARREN AND WASHINGTON                        | 1115 STATE ROUTE 86, Po Box 296<br>RAY BROOK, NY 12977-0296<br>TEL. (518) 897-1234                 | 232 GOLF COURSE ROAD<br>WARRENSBURG, NY 12885-1172 TEL.<br>(518) 623-1200                          |
| 6             | HERKIMER, JEFFERSON, LEWIS, ONEIDA AND ST. LAWRENCE                                                | STATE OFFICE BUILDING<br>317 WASHINGTON STREET<br>WATERTOWN, NY 13601-3787<br>TEL. (315) 785-2245  | STATE OFFICE BUILDING<br>207 GENESEE STREET<br>UTICA, NY 13501-2885 TEL. (315)<br>793-2554         |
| 7             | BROOME, CAYUGA, CHENANGO, CORTLAND, MADISON, ONONDAGA, OSWEGO, TIOGA AND TOMPKINS                  | 615 ERIE BLVD. WEST<br>SYRACUSE, NY 13204-2400<br>TEL. (315) 426-7438                              | 615 ERIE BLVD. WEST<br>SYRACUSE, NY 13204-2400<br>TEL. (315) 426-7500                              |
| 8             | CHEMUNG, GENESEE, LIVINGSTON, MONROE, ONTARIO, ORLEANS, SCHUYLER, SENECA, STEUBEN, WAYNE AND YATES | 6274 EAST AVON-LIMA<br>ROADAVON, NY 14414-9519<br>TEL. (585) 226-2466                              | 6274 EAST AVON-LIMA RD.<br>AVON, NY 14414-9519<br>TEL. (585) 226-2466                              |
| 9             | ALLEGANY, CATTARAUGUS, CHAUTAUQUA, ERIE, NIAGARA AND WYOMING                                       | 270 MICHIGAN AVENUE<br>BUFFALO, NY 14203-2999<br>TEL. (716) 851-7165                               | 270 MICHIGAN AVENUE<br>BUFFALO, NY 14203-2999<br>TEL. (716) 851-7070                               |

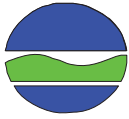
# Appendix D



[www.dewberry.com](http://www.dewberry.com)



# NOTICE OF INTENT



**New York State Department of Environmental Conservation  
Division of Water  
625 Broadway, 4th Floor  
Albany, New York 12233-3505**

**NYR**   
(For DEC use only)

**Stormwater Discharges Associated with Construction Activity Under State Pollutant Discharge Elimination System (SPDES) General Permit # GP-0-20-001**  
All sections must be completed unless otherwise noted. Failure to complete all items may result in this form being returned to you, thereby delaying your coverage under this General Permit. Applicants must read and understand the conditions of the permit and prepare a Stormwater Pollution Prevention Plan prior to submitting this NOI. Applicants are responsible for identifying and obtaining other DEC permits that may be required.

**- IMPORTANT -**  
**RETURN THIS FORM TO THE ADDRESS ABOVE**  
**OWNER/OPERATOR MUST SIGN FORM**

### Owner/Operator Information

Owner/Operator (Company Name/Private Owner Name/Municipality Name)

Owner/Operator Contact Person Last Name (NOT CONSULTANT)

Owner/Operator Contact Person First Name

Owner/Operator Mailing Address

City

State  Zip  -

Phone (Owner/Operator)  -  -  Fax (Owner/Operator)  -  -

Email (Owner/Operator)

FED TAX ID  -  (not required for individuals)

**Project Site Information**

Project/Site Name

GLENCOMA LAKE CELL TOWER COMPOUND

Street Address (NOT P.O. BOX)

WALTON DRIVE

Side of Street

North  South  East  West

City/Town/Village (THAT ISSUES BUILDING PERMIT)

C A R M E L

State

N Y

Zip

1 0 5 4 1 -

County

P U T N A M

DEC Region

3

Name of Nearest Cross Street

S U M M I T C I R C L E D R I V E

Distance to Nearest Cross Street (Feet)

5 5 0

Project In Relation to Cross Street

North  South  East  West

Tax Map Numbers

Section-Block-Parcel  
1 - 9 0

Tax Map Numbers

8 7 . 9

1. Provide the Geographic Coordinates for the project site. To do this, go to the NYSDEC Stormwater Interactive Map on the DEC website at:

<https://gisservices.dec.ny.gov/gis/stormwater/>

Zoom into your Project Location such that you can accurately click on the centroid of your site. Once you have located the centroid of your project site, go to the bottom right hand corner of the map for the X, Y coordinates. Enter the coordinates into the boxes below. For problems with the interactive map use the help function.

**X Coordinates (Easting)**

-7 3 . 7 3 1

Ex. -73.749

**Y Coordinates (Northing)**

4 1 . 3 5 0

Ex. 42.652

2. What is the nature of this construction project?

New Construction

Redevelopment with increase in impervious area

Redevelopment with no increase in impervious area

3. Select the predominant land use for both pre and post development conditions.  
**SELECT ONLY ONE CHOICE FOR EACH**

**Pre-Development  
Existing Land Use**

- FOREST
- PASTURE/OPEN LAND
- CULTIVATED LAND
- SINGLE FAMILY HOME
- SINGLE FAMILY SUBDIVISION
- TOWN HOME RESIDENTIAL
- MULTIFAMILY RESIDENTIAL
- INSTITUTIONAL/SCHOOL
- INDUSTRIAL
- COMMERCIAL
- ROAD/HIGHWAY
- RECREATIONAL/SPORTS FIELD
- BIKE PATH/TRAIL
- LINEAR UTILITY
- PARKING LOT
- OTHER

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
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|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|

**Post-Development  
Future Land Use**

- SINGLE FAMILY HOME
- SINGLE FAMILY SUBDIVISION
- TOWN HOME RESIDENTIAL
- MULTIFAMILY RESIDENTIAL
- INSTITUTIONAL/SCHOOL
- INDUSTRIAL
- COMMERCIAL
- MUNICIPAL
- ROAD/HIGHWAY
- RECREATIONAL/SPORTS FIELD
- BIKE PATH/TRAIL
- LINEAR UTILITY (water, sewer, gas, etc.)
- PARKING LOT
- CLEARING/GRADING ONLY
- DEMOLITION, NO REDEVELOPMENT
- WELL DRILLING ACTIVITY \*(Oil, Gas, etc.)
- OTHER

Number of Lots

|  |  |  |  |
|--|--|--|--|
|  |  |  |  |
|--|--|--|--|

CELL TOWER

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|

**\*Note:** for gas well drilling, non-high volume hydraulic fractured wells only

4. In accordance with the larger common plan of development or sale, enter the total project site area; the total area to be disturbed; existing impervious area to be disturbed (for redevelopment activities); and the future impervious area constructed within the disturbed area. (Round to the nearest tenth of an acre.)

| Total Site Area | Total Area To Be Disturbed | Existing Impervious Area To Be Disturbed | Future Impervious Area Within Disturbed Area |
|-----------------|----------------------------|------------------------------------------|----------------------------------------------|
| 66. 7 .         | 0.5 .                      | 0 .                                      | 0.1 .                                        |

5. Do you plan to disturb more than 5 acres of soil at any one time?  Yes  No

6. Indicate the percentage of each Hydrologic Soil Group(HSG) at the site.

|                                                                                                     |   |   |   |                                                                                                        |     |  |  |                                                                                                     |  |  |  |                                                                                                     |  |  |  |
|-----------------------------------------------------------------------------------------------------|---|---|---|--------------------------------------------------------------------------------------------------------|-----|--|--|-----------------------------------------------------------------------------------------------------|--|--|--|-----------------------------------------------------------------------------------------------------|--|--|--|
| A                                                                                                   | B | C | D |                                                                                                        |     |  |  |                                                                                                     |  |  |  |                                                                                                     |  |  |  |
| <table border="1" style="width: 40px; height: 20px;"><tr><td></td><td></td><td></td></tr></table> % |   |   |   | <table border="1" style="width: 40px; height: 20px;"><tr><td>100</td><td></td><td></td></tr></table> % | 100 |  |  | <table border="1" style="width: 40px; height: 20px;"><tr><td></td><td></td><td></td></tr></table> % |  |  |  | <table border="1" style="width: 40px; height: 20px;"><tr><td></td><td></td><td></td></tr></table> % |  |  |  |
|                                                                                                     |   |   |   |                                                                                                        |     |  |  |                                                                                                     |  |  |  |                                                                                                     |  |  |  |
| 100                                                                                                 |   |   |   |                                                                                                        |     |  |  |                                                                                                     |  |  |  |                                                                                                     |  |  |  |
|                                                                                                     |   |   |   |                                                                                                        |     |  |  |                                                                                                     |  |  |  |                                                                                                     |  |  |  |
|                                                                                                     |   |   |   |                                                                                                        |     |  |  |                                                                                                     |  |  |  |                                                                                                     |  |  |  |

7. Is this a phased project?  Yes  No

8. Enter the planned start and end dates of the disturbance activities.

|                   |                 |
|-------------------|-----------------|
| <b>Start Date</b> | <b>End Date</b> |
| 11/07/2020/       | / /             |



15. Does the site runoff enter a separate storm sewer system (including roadside drains, swales, ditches, culverts, etc)?  Yes  No  Unknown

16. What is the name of the municipality/entity that owns the separate storm sewer system?

TOWN OF CARMEL

17. Does any runoff from the site enter a sewer classified as a Combined Sewer?  Yes  No  Unknown

18. Will future use of this site be an agricultural property as defined by the NYS Agriculture and Markets Law?  Yes  No

19. Is this property owned by a state authority, state agency, federal government or local government?  Yes  No

20. Is this a remediation project being done under a Department approved work plan? (i.e. CERCLA, RCRA, Voluntary Cleanup Agreement, etc.)  Yes  No

21. Has the required Erosion and Sediment Control component of the SWPPP been developed in conformance with the current NYS Standards and Specifications for Erosion and Sediment Control (aka Blue Book)?  Yes  No

22. Does this construction activity require the development of a SWPPP that includes the post-construction stormwater management practice component (i.e. Runoff Reduction, Water Quality and Quantity Control practices/techniques)?  Yes  No  
If No, skip questions 23 and 27-39.

23. Has the post-construction stormwater management practice component of the SWPPP been developed in conformance with the current NYS Stormwater Management Design Manual?  Yes  No





**Post-construction Stormwater Management Practice (SMP) Requirements**

**Important: Completion of Questions 27-39 is not required if response to Question 22 is No.**

27. Identify all site planning practices that were used to prepare the final site plan/layout for the project.

- Preservation of Undisturbed Areas
- Preservation of Buffers
- Reduction of Clearing and Grading
- Locating Development in Less Sensitive Areas
- Roadway Reduction
- Sidewalk Reduction
- Driveway Reduction
- Cul-de-sac Reduction
- Building Footprint Reduction
- Parking Reduction

27a. Indicate which of the following soil restoration criteria was used to address the requirements in Section 5.1.6("Soil Restoration") of the Design Manual (2010 version).

- All disturbed areas will be restored in accordance with the Soil Restoration requirements in Table 5.3 of the Design Manual (see page 5-22).
- Compacted areas were considered as impervious cover when calculating the **WQv Required**, and the compacted areas were assigned a post-construction Hydrologic Soil Group (HSG) designation that is one level less permeable than existing conditions for the hydrology analysis.

28. Provide the total Water Quality Volume (WQv) required for this project (based on final site plan/layout).

**Total WQv Required**

.     acre-feet

29. Identify the RR techniques (Area Reduction), RR techniques (Volume Reduction) and Standard SMPs with RRv Capacity in Table 1 (See Page 9) that were used to reduce the Total WQv Required (#28).

Also, provide in Table 1 the total impervious area that contributes runoff to each technique/practice selected. For the Area Reduction Techniques, provide the total contributing area (includes pervious area) and, if applicable, the total impervious area that contributes runoff to the technique/practice.

**Note:** Redevelopment projects shall use Tables 1 and 2 to identify the SMPs used to treat and/or reduce the WQv required. If runoff reduction techniques will not be used to reduce the required WQv, skip to question 33a after identifying the SMPs.



Table 1 - Runoff Reduction (RR) Techniques and Standard Stormwater Management Practices (SMPs)

| <u>RR Techniques (Area Reduction)</u>                                           | <u>Total Contributing Area (acres)</u> |                      | <u>Total Contributing Impervious Area(acres)</u> |                      |
|---------------------------------------------------------------------------------|----------------------------------------|----------------------|--------------------------------------------------|----------------------|
| <input type="radio"/> Conservation of Natural Areas (RR-1) ...                  | <input type="text"/>                   | <input type="text"/> | and/or                                           | <input type="text"/> |
| <input type="radio"/> Sheetflow to Riparian Buffers/Filters Strips (RR-2) ..... | <input type="text"/>                   | <input type="text"/> | and/or                                           | <input type="text"/> |
| <input type="radio"/> Tree Planting/Tree Pit (RR-3) .....                       | <input type="text"/>                   | <input type="text"/> | and/or                                           | <input type="text"/> |
| <input type="radio"/> Disconnection of Rooftop Runoff (RR-4) ..                 | <input type="text"/>                   | <input type="text"/> | and/or                                           | <input type="text"/> |
| <u>RR Techniques (Volume Reduction)</u>                                         |                                        |                      |                                                  |                      |
| <input type="radio"/> Vegetated Swale (RR-5) .....                              |                                        |                      |                                                  |                      |
| <input type="radio"/> Rain Garden (RR-6) .....                                  |                                        |                      |                                                  |                      |
| <input type="radio"/> Stormwater Planter (RR-7) .....                           |                                        |                      |                                                  |                      |
| <input type="radio"/> Rain Barrel/Cistern (RR-8) .....                          |                                        |                      |                                                  |                      |
| <input type="radio"/> Porous Pavement (RR-9) .....                              |                                        |                      |                                                  |                      |
| <input type="radio"/> Green Roof (RR-10) .....                                  |                                        |                      |                                                  |                      |
| <u>Standard SMPs with RRv Capacity</u>                                          |                                        |                      |                                                  |                      |
| <input type="radio"/> Infiltration Trench (I-1) .....                           |                                        |                      |                                                  |                      |
| <input type="radio"/> Infiltration Basin (I-2) .....                            |                                        |                      |                                                  |                      |
| <input type="radio"/> Dry Well (I-3) .....                                      |                                        |                      |                                                  |                      |
| <input type="radio"/> Underground Infiltration System (I-4) .....               |                                        |                      |                                                  |                      |
| <input type="radio"/> Bioretention (F-5) .....                                  |                                        |                      |                                                  |                      |
| <input type="radio"/> Dry Swale (O-1) .....                                     |                                        |                      |                                                  |                      |
| <u>Standard SMPs</u>                                                            |                                        |                      |                                                  |                      |
| <input type="radio"/> Micropool Extended Detention (P-1) .....                  |                                        |                      |                                                  |                      |
| <input type="radio"/> Wet Pond (P-2) .....                                      |                                        |                      |                                                  |                      |
| <input type="radio"/> Wet Extended Detention (P-3) .....                        |                                        |                      |                                                  |                      |
| <input type="radio"/> Multiple Pond System (P-4) .....                          |                                        |                      |                                                  |                      |
| <input type="radio"/> Pocket Pond (P-5) .....                                   |                                        |                      |                                                  |                      |
| <input type="radio"/> Surface Sand Filter (F-1) .....                           |                                        |                      |                                                  |                      |
| <input type="radio"/> Underground Sand Filter (F-2) .....                       |                                        |                      |                                                  |                      |
| <input type="radio"/> Perimeter Sand Filter (F-3) .....                         |                                        |                      |                                                  |                      |
| <input type="radio"/> Organic Filter (F-4) .....                                |                                        |                      |                                                  |                      |
| <input type="radio"/> Shallow Wetland (W-1) .....                               |                                        |                      |                                                  |                      |
| <input type="radio"/> Extended Detention Wetland (W-2) .....                    |                                        |                      |                                                  |                      |
| <input type="radio"/> Pond/Wetland System (W-3) .....                           |                                        |                      |                                                  |                      |
| <input type="radio"/> Pocket Wetland (W-4) .....                                |                                        |                      |                                                  |                      |
| <input type="radio"/> Wet Swale (O-2) .....                                     |                                        |                      |                                                  |                      |











**New York State Department of Environmental Conservation  
Division of Water  
625 Broadway, 4th Floor  
Albany, New York 12233-3505**

\*(NOTE: Submit completed form to address above)\*

**NOTICE OF TERMINATION for Storm Water Discharges Authorized  
under the SPDES General Permit for Construction Activity**

**Please indicate your permit identification number:** NYR \_\_\_\_\_

**I. Owner or Operator Information**

1. Owner/Operator Name:

2. Street Address:

3. City/State/Zip:

4. Contact Person:

4a. Telephone:

4b. Contact Person E-Mail:

**II. Project Site Information**

5. Project/Site Name:

6. Street Address:

7. City/Zip:

8. County:

**III. Reason for Termination**

9a.  All disturbed areas have achieved final stabilization in accordance with the general permit and SWPPP. \*Date final stabilization completed (month/year): \_\_\_\_\_

9b.  Permit coverage has been transferred to new owner/operator. Indicate new owner/operator's permit identification number: NYR \_\_\_\_\_  
(Note: Permit coverage can not be terminated by owner identified in I.1. above until new owner/operator obtains coverage under the general permit)

9c.  Other (Explain on Page 2)

**IV. Final Site Information:**

10a. Did this construction activity require the development of a SWPPP that includes post-construction stormwater management practices?  yes  no (If no, go to question 10f.)

10b. Have all post-construction stormwater management practices included in the final SWPPP been constructed?  yes  no (If no, explain on Page 2)

10c. Identify the entity responsible for long-term operation and maintenance of practice(s)?

\_\_\_\_\_

**NOTICE OF TERMINATION for Storm Water Discharges Authorized under the  
SPDES General Permit for Construction Activity - continued**

10d. Has the entity responsible for long-term operation and maintenance been given a copy of the operation and maintenance plan required by the general permit?     yes     no

10e. Indicate the method used to ensure long-term operation and maintenance of the post-construction stormwater management practice(s):

- Post-construction stormwater management practice(s) and any right-of-way(s) needed to maintain practice(s) have been deeded to the municipality.
- Executed maintenance agreement is in place with the municipality that will maintain the post-construction stormwater management practice(s).
- For post-construction stormwater management practices that are privately owned, a mechanism is in place that requires operation and maintenance of the practice(s) in accordance with the operation and maintenance plan, such as a deed covenant in the owner or operator's deed of record.
- For post-construction stormwater management practices that are owned by a public or private institution (e.g. school, university or hospital), government agency or authority, or public utility; policy and procedures are in place that ensures operation and maintenance of the practice(s) in accordance with the operation and maintenance plan.

10f. Provide the total area of impervious surface (i.e. roof, pavement, concrete, gravel, etc.) constructed within the disturbance area? \_\_\_\_\_  
(acres)

11. Is this project subject to the requirements of a regulated, traditional land use control MS4?     yes  
 no  
(If Yes, complete section VI - "MS4 Acceptance" statement)

**V. Additional Information/Explanation:**  
(Use this section to answer questions 9c. and 10b., if applicable)

**VI. MS4 Acceptance - MS4 Official (principal executive officer or ranking elected official) or Duly Authorized Representative** (Note: Not required when 9b. is checked -transfer of coverage)

I have determined that it is acceptable for the owner or operator of the construction project identified in question 5 to submit the Notice of Termination at this time.

Printed Name:

Title/Position:

Signature:

Date:



**NOTICE OF TERMINATION for Storm Water Discharges Authorized under the  
SPDES General Permit for Construction Activity - continued**

**VII. Qualified Inspector Certification - Final Stabilization:**

I hereby certify that all disturbed areas have achieved final stabilization as defined in the current version of the general permit, and that all temporary, structural erosion and sediment control measures have been removed. Furthermore, I understand that certifying false, incorrect or inaccurate information is a violation of the referenced permit and the laws of the State of New York and could subject me to criminal, civil and/or administrative proceedings.

Printed Name:

Title/Position:

Signature:

Date:

**VIII. Qualified Inspector Certification - Post-construction Stormwater Management Practice(s):**

I hereby certify that all post-construction stormwater management practices have been constructed in conformance with the SWPPP. Furthermore, I understand that certifying false, incorrect or inaccurate information is a violation of the referenced permit and the laws of the State of New York and could subject me to criminal, civil and/or administrative proceedings.

Printed Name:

Title/Position:

Signature:

Date:

**IX. Owner or Operator Certification**

I hereby certify that this document was prepared by me or under my direction or supervision. My determination, based upon my inquiry of the person(s) who managed the construction activity, or those persons directly responsible for gathering the information, is that the information provided in this document is true, accurate and complete. Furthermore, I understand that certifying false, incorrect or inaccurate information is a violation of the referenced permit and the laws of the State of New York and could subject me to criminal, civil and/or administrative proceedings.

Printed Name:

Title/Position:

Signature:

Date:

# Appendix E

[www.dewberry.com](http://www.dewberry.com)

## CONTRACTOR SWPPP CERTIFICATION

I hereby certify under penalty of law that I understand and agree to comply with the terms and conditions of the SWPPP and agree to implement any corrective actions identified by the qualified inspector during a site inspection. I also understand that the owner or operator must comply with the terms and conditions of the most current version of the New York State Pollutant Discharge Elimination System ("SPDES") general permit for stormwater discharges from construction activities and that it is unlawful for any person to cause or contribute to a violation of water quality standards. Furthermore, I am aware that there are significant penalties for submitting false information, that I do not believe to be true, including the possibility of fine and imprisonment for knowing violation

|                                                  |
|--------------------------------------------------|
| PROJECT NAME: Glencoma Lake Cell Tower Compound  |
| PROJECT ADDRESS: Walton Drive, Mahopac, New York |
| PRIME CONTRACTOR                                 |
| ADDRESS                                          |
|                                                  |
| TELEPHONE NUMBER                                 |
|                                                  |
| SIGNATURE                                        |
|                                                  |
| TYPE OR PRINT NAME                               |
| TITLE:                                           |
|                                                  |
| DATE:                                            |
|                                                  |

**EROSION AND SEDIMENT CONTROL**  
**TRAINED INDIVIDUAL**

Project Name \_\_\_\_\_

Trained Individual \_\_\_\_\_

Training Provided By \_\_\_\_\_

Date of Training \_\_\_\_\_

Follow Up Training Dates \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
I certify under penalty of law that the above-named individual has received  
Erosion and Sediment Control Training as specified in Section 015713, Part  
1.01 Erosion and Sediment Control.

Signature \_\_\_\_\_

Type in Print Name \_\_\_\_\_

Title \_\_\_\_\_

Date \_\_\_\_\_

Company Name \_\_\_\_\_

Address \_\_\_\_\_



# Owner/Operator Certification Form

## SPDES General Permit For Stormwater Discharges From Construction Activity (GP-0-20-001)

Project/Site Name: \_\_\_\_\_

eNOI Submission Number: \_\_\_\_\_

eNOI Submitted by:  Owner/Operator  SWPPP Preparer  Other

### Certification Statement - Owner/Operator

I have read or been advised of the permit conditions and believe that I understand them. I also understand that, under the terms of the permit, there may be reporting requirements. I hereby certify that this document and the corresponding documents were prepared under my direction or supervision. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. I further understand that coverage under the general permit will be identified in the acknowledgment that I will receive as a result of submitting this NOI and can be as long as sixty (60) business days as provided for in the general permit. I also understand that, by submitting this NOI, I am acknowledging that the SWPPP has been developed and will be implemented as the first element of construction, and agreeing to comply with all the terms and conditions of the general permit for which this NOI is being submitted.

Owner/Operator First Name

M.I. Last Name

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date



# SWPPP Preparer Certification Form

---

*SPDES General Permit for Stormwater  
Discharges From Construction Activity  
(GP-0-20-001)*

## Project Site Information

### Project/Site Name

Glencoma Lake Cell Tower Compound

## Owner/Operator Information

### Owner/Operator (Company Name/Private Owner/Municipality Name)

Homeland Towers, LLC

## Certification Statement – SWPPP Preparer

I hereby certify that the Stormwater Pollution Prevention Plan (SWPPP) for this project has been prepared in accordance with the terms and conditions of the GP-0-20-001. Furthermore, I understand that certifying false, incorrect or inaccurate information is a violation of this permit and the laws of the State of New York and could subject me to criminal, civil and/or administrative proceedings.

Robert

First name

J.

MI

Foley

Last Name

Signature

Date

# Appendix F

## NY Department of Environmental Conservation Standards for Erosion and Sediment Control

| <b><u>Standard</u></b>               | <b><u>Page</u></b> |
|--------------------------------------|--------------------|
| Standard for Protecting Vegetation   | 2.26               |
| Stabilized Construction Access       | 2.30               |
| Standard for Winter Stabilization    | 2.38               |
| Anchored Stabilization Matting       | 4.5                |
| Landgrading                          | 4.24               |
| Loose Stabilization Blankets         | 4.37               |
| Mulching & Wood Mulch                | 4.39               |
| Permanent Construction Area Planting | 4.42               |
| Temporary Construction Area Seeding  | 4.58               |
| Topsoiling                           | 4.59               |
| Trees, Shrubs, and Vines             | 4.63               |
| Silt Fence                           | 5.54               |

# STANDARD AND SPECIFICATIONS FOR PROTECTING VEGETATION DURING CONSTRUCTION



## **Definition & Scope**

The protection of trees, shrubs, ground cover and other vegetation from damage by construction equipment. In order to preserve existing vegetation determined to be important for soil erosion control, water quality protection, shade, screening, buffers, wildlife habitat, wetland protection, and other values.

## **Conditions Where Practices Applies**

On planned construction sites where valued vegetation exists and needs to be preserved.

## **Design Criteria**

### 1. Planning Considerations

#### A. Inventory:

1) Property boundaries, topography, vegetation and soils information should be gathered. Identify potentially high erosion areas, areas with tree windthrow potential, etc. A vegetative cover type map should be made on a copy of a topographic map which shows other natural and manmade features. Vegetation that is desirable to preserve because of its value for screening, shade, critical erosion control, endangered species, aesthetics, etc., should be identified and marked on the map.

2) Based upon this data, general statements should be prepared about the present condition, potential problem areas, and unique features of the property.

#### B. Planning:

1) After engineering plans (plot maps) are prepared, another field review should take place and

recommendations made for the vegetation to be saved. Minor adjustments in location of roads, dwellings, and utilities may be needed. Construction on steep slopes, erodible soils, wetlands, and streams should be avoided. Clearing limits should be delineated (See "Determine Limits of Clearing and Grading" on page 2.2).

2) Areas to be seeded and planted should be identified. Remaining vegetation should blend with their surroundings and/or provide special function such as a filter strip, buffer zone, or screen.

3) Trees and shrubs of special seasonal interest, such as flowering dogwood, red maple, striped maple, serviceberry, or shadbush, and valuable potential shade trees should be identified and marked for special protective treatment as appropriate.

4) Trees to be cut should be marked on the plans. If timber can be removed for salable products, a forester should be consulted for marketing advice.

5) Trees that may become a hazard to people, personal property, or utilities should be removed. These include trees that are weak-wooded, disease-prone, subject to windthrow, or those that have severely damaged root systems.

6) The vigor of remaining trees may be improved by a selective thinning. A forester should be consulted for implementing this practice.

### 2. Measures to Protect Vegetation

A. Limit soil placement over existing tree and shrub roots to a maximum of 3 inches. Soils with loamy texture and good structure should be used.

B. Use retaining walls and terraces to protect roots of trees and shrubs when grades are lowered. Lowered grades should start no closer than the dripline of the tree. For narrow-canopied trees and shrubs, the stem diameter in inches is converted to feet and doubled, such that a 10 inch tree should be protected to 20 feet.

C. Trenching across tree root systems should be the same minimum distance from the trunk, as in "B". Tunnels under root systems for underground utilities should start 18 inches or deeper below the normal ground surface. Tree roots which must be severed should be cut clean. Backfill material that will be in contact with the roots should be topsoil or a prepared planting soil mixture.

D. Construct sturdy fences, or barriers, of wood, steel, or other protective material around valuable



vegetation for protection from construction equipment. Place barriers far enough away from trees, but not less than the specifications in "B", so that tall equipment such as backhoes and dump trucks do not contact tree branches.

E. Construction limits should be identified and clearly marked to exclude equipment.

F. Avoid spills of oil/gas and other contaminants.

G. Obstructive and broken branches should be pruned properly. The branch collar on all branches whether living or dead should not be damaged. The 3 or 4 cut method should be used on all branches larger than two inches at the cut. First cut about one-third the way through the underside of the limb (about 6-12 inches from the tree trunk). Then (approximately an inch further out) make a second cut through the limb from the upper side. When the branch is removed, there is no splintering of the main tree trunk. Remove the stub. If the branch is larger than 5-6 inches in diameter, use the four cut system. Cuts 1 and 2 remain the same and cut 3 should be from the underside of the limb, on the outside of the branch collar. Cut 4 should be from the top and in alignment with the 3rd cut. Cut 3 should be 1/4 to 1/3 the way through the limb. This will prevent the bark from peeling down the trunk. Do not paint the cut surface.

H. Penalties for damage to valuable trees, shrubs, and herbaceous plants should be clearly spelled out in the contract.

## **PROTECTING TREES IN HEAVY USE AREAS**

The compaction of soil over the roots of trees and shrubs by the trampling of recreationists, vehicular traffic, etc., reduces oxygen, water, and nutrient uptake by feeder roots. This weakens and may eventually kill the plants. Table 2.6 rates the "Susceptibility of Tree Species to Compaction."

Where heavy compaction is anticipated, apply and maintain a 3 to 4 inch layer of undecayed wood chips or 2 inches of No. 2 washed, crushed gravel. In addition, use of a wooden or plastic mat may be used to lessen compaction, if applicable.

## Table 2.6 Susceptibility of Tree Species to Compaction<sup>1</sup>

### Resistant:

|                          |                               |                         |                              |
|--------------------------|-------------------------------|-------------------------|------------------------------|
| Box elder.....           | <i>Acer negundo</i>           | Willows.....            | <i>Salix spp.</i>            |
| Green ash.....           | <i>Fraxinus pennsylvanica</i> | Honey locust.....       | <i>Gleditsia triacanthos</i> |
| Red elm.....             | <i>Ulmus rubra</i>            | Eastern cottonwood..... | <i>Populus deltoides</i>     |
| Hawthornes.....          | <i>Crataegus spp.</i>         | Swamp white oak.....    | <i>Quercus bicolor</i>       |
| Bur oak.....             | <i>Quercus macrocarpa</i>     | Hophornbeam.....        | <i>Ostrya virginiana</i>     |
| Northern white cedar.... | <i>Thuja occidentalis</i>     |                         |                              |

### Intermediate:

|                   |                            |                       |                                |
|-------------------|----------------------------|-----------------------|--------------------------------|
| Red maple.....    | <i>Acer rubrum</i>         | Sweetgum.....         | <i>Liquidambar styraciflua</i> |
| Silver maple..... | <i>Acer saccharinum</i>    | Norway maple.....     | <i>Acer platanoides</i>        |
| Hackberry.....    | <i>Celtis occidentalis</i> | Shagbark hickory..... | <i>Carya ovata</i>             |
| Black gum.....    | <i>Nyssa sylvatica</i>     | London plane.....     | <i>Platanus x hybrida</i>      |
| Red oak.....      | <i>Quercus rubra</i>       | Pin oak.....          | <i>Quercus palustris</i>       |
| Basswood.....     | <i>Tilia americana</i>     |                       |                                |

### Susceptible:

|                  |                       |                     |                           |
|------------------|-----------------------|---------------------|---------------------------|
| Sugar maple..... | <i>Acer saccharum</i> | Austrian Pine.....  | <i>Pinus nigra</i>        |
| White pine.....  | <i>Pinus strobus</i>  | White ash.....      | <i>Fraxinus americana</i> |
| Blue spruce..... | <i>Picea pungens</i>  | Paper birch.....    | <i>Betula papyrifera</i>  |
| White oak.....   | <i>Quercus alba</i>   | Moutain ash.....    | <i>Sorbus aucuparia</i>   |
| Red pine.....    | <i>Pinus resinosa</i> | Japanese maple..... | <i>Acer palmatum</i>      |

<sup>1</sup> If a tree species does not appear on the list, insufficient information is available to rate it for this purpose.

# STANDARD AND SPECIFICATIONS FOR STABILIZED CONSTRUCTION ACCESS



inert to commonly encountered chemicals, hydro-carbons, mildew, rot resistant, and conform to the fabric properties as shown:

| Fabric Properties <sup>3</sup> | Light Duty <sup>1</sup><br>Roads<br>Grade Sub-<br>grade | Heavy Duty <sup>2</sup><br>Haul Roads<br>Rough Graded | Test Meth-<br>od   |
|--------------------------------|---------------------------------------------------------|-------------------------------------------------------|--------------------|
| Grab Tensile Strength (lbs)    | 200                                                     | 220                                                   | ASTM D1682         |
| Elongation at Failure (%)      | 50                                                      | 60                                                    | ASTM D1682         |
| Mullen Burst Strength (lbs)    | 190                                                     | 430                                                   | ASTM D3786         |
| Puncture Strength (lbs)        | 40                                                      | 125                                                   | ASTM D751 Modified |
| Equivalent                     | 40-80                                                   | 40-80                                                 | US Std Sieve       |
| Opening Size                   |                                                         |                                                       | CW-02215           |
| Aggregate Depth                | 6                                                       | 10                                                    | -                  |

## Definition & Scope

A stabilized pad of aggregate underlain with geotextile located at any point where traffic will be entering or leaving a construction site to or from a public right-of-way, street, alley, sidewalk, or parking area. The purpose of stabilized construction access is to reduce or eliminate the tracking of sediment onto public rights-of-way or streets.

## Conditions Where Practice Applies

A stabilized construction access shall be used at all points of construction ingress and egress.

## Design Criteria

See Figure 2.1 on page 2.31 for details.

**Aggregate Size:** Use a matrix of 1-4 inch stone, or reclaimed or recycled concrete equivalent.

**Thickness:** Not less than six (6) inches.

**Width:** 12-foot minimum but not less than the full width of points where ingress or egress occurs. 24-foot minimum if there is only one access to the site.

**Length:** As required, but not less than 50 feet (except on a single residence lot where a 30 foot minimum would apply).

**Geotextile:** To be placed over the entire area to be covered with aggregate. Filter cloth will not be required on a single-family residence lot. Piping of surface water under entrance shall be provided as required. If piping is impossible, a mountable berm with 5:1 slopes will be permitted.

**Criteria for Geotextile:** The geotextile shall be woven or nonwoven fabric consisting only of continuous chain polymeric filaments or yarns of polyester. The fabric shall be

<sup>1</sup>Light Duty Road: Area sites that have been graded to subgrade and where most travel would be single axle vehicles and an occasional multi-axle truck. Acceptable materials are Trevira Spunbond 1115, Mirafi 100X, Typar 3401, or equivalent.

<sup>2</sup>Heavy Duty Road: Area sites with only rough grading, and where most travel would be multi-axle vehicles. Acceptable materials are Trevira Spunbond 1135, Mirafi 600X, or equivalent.

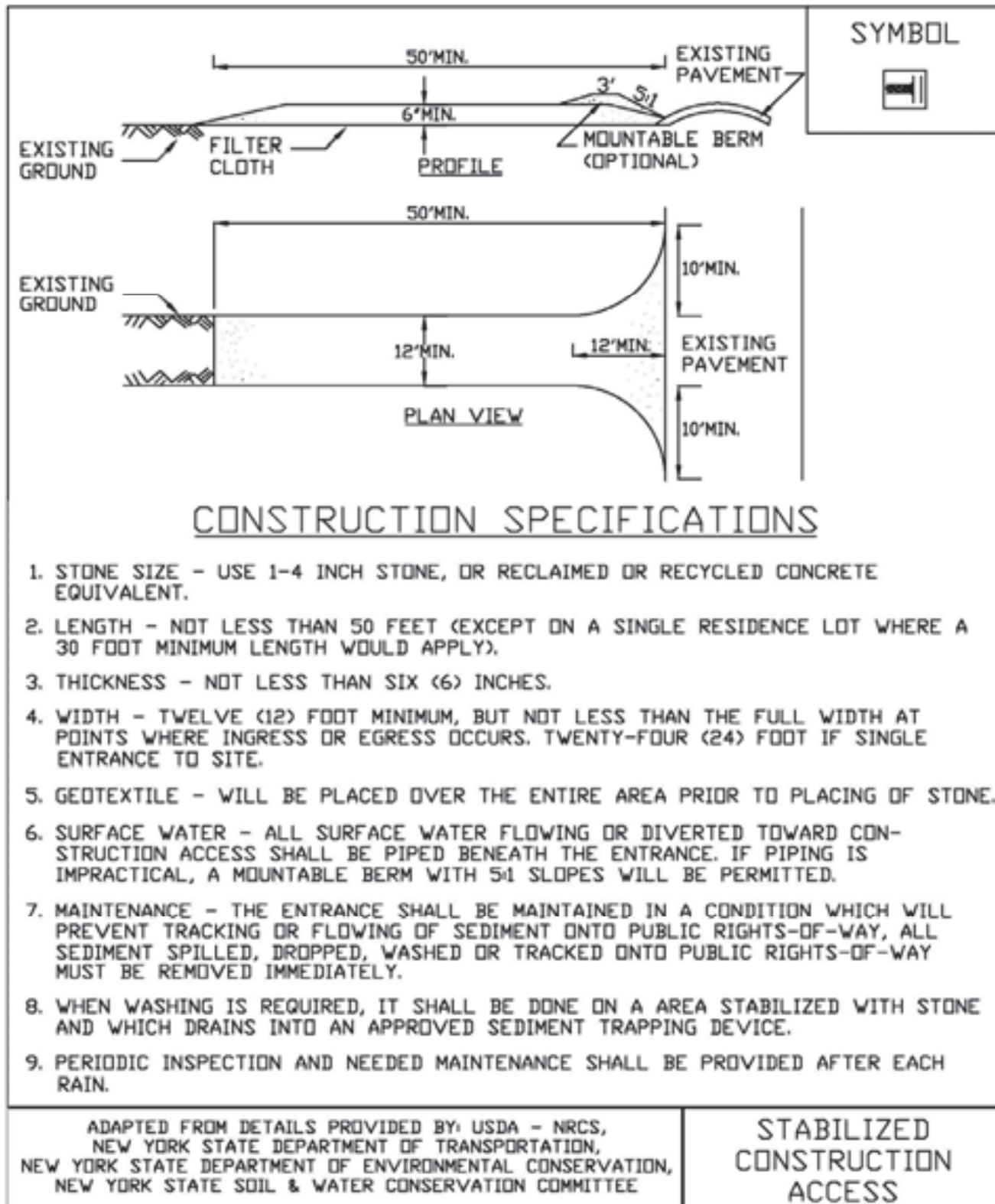
<sup>3</sup>Fabrics not meeting these specifications may be used only when design procedure and supporting documentation are supplied to determine aggregate depth and fabric strength.

## Maintenance

The access shall be maintained in a condition which will prevent tracking of sediment onto public rights-of-way or streets. This may require periodic top dressing with additional aggregate. All sediment spilled, dropped, or washed onto public rights-of-way must be removed immediately.

When necessary, wheels must be cleaned to remove sediment prior to entrance onto public rights-of-way. When washing is required, it shall be done on an area stabilized with aggregate, which drains into an approved sediment-trapping device. All sediment shall be prevented from entering storm drains, ditches, or watercourses.

**Figure 2.1  
Stabilized Construction Access**



# STANDARD AND SPECIFICATIONS FOR WINTER STABILIZATION



## Definition & Scope

A temporary site specific, enhanced erosion and sediment control plan to manage runoff and sediment at the site during construction activities in the winter months to protect off-site water resources.

## Conditions Where Practice Applies

This standard applies to all construction activities involved with ongoing land disturbance and exposure between November 15<sup>th</sup> to the following April 1<sup>st</sup>.

## Design Criteria

1. Prepare a snow management plan with adequate storage for snow and control of melt water, requiring cleared snow to be stored in a manner not affecting ongoing construction activities.
2. Enlarge and stabilize access points to provide for snow management and stockpiling. Snow management activities must not destroy or degrade installed erosion and sediment control practices.
3. A minimum 25 foot buffer shall be maintained from all perimeter controls such as silt fence. Mark silt fence with tall stakes that are visible above the snow pack.
4. Edges of disturbed areas that drain to a waterbody within 100 feet will have 2 rows of silt fence, 5 feet apart, installed on the contour.
5. Drainage structures must be kept open and free of snow and ice dams. All debris, ice dams, or debris from plowing operations, that restrict the flow of runoff and meltwater, shall be removed.
6. Sediment barriers must be installed at all appropriate

perimeter and sensitive locations. Silt fence and other practices requiring earth disturbance must be installed before the ground freezes.

7. Soil stockpiles must be protected by the use of established vegetation, anchored straw mulch, rolled stabilization matting, or other durable covering. A barrier must be installed at least 15 feet from the toe of the stockpile to prevent soil migration and to capture loose soil.
8. In areas where soil disturbance activity has temporarily or permanently ceased, the application of soil stabilization measures should be initiated by the end of the next business day and completed within three (3) days. Rolled erosion control blankets must be used on all slopes 3 horizontal to 1 vertical or steeper.
9. If straw mulch alone is used for temporary stabilization, it shall be applied at double the standard rate of 2 tons per acre, making the application rate 4 tons per acre. Other manufactured mulches should be applied at double the manufacturer's recommended rate.
10. To ensure adequate stabilization of disturbed soil in advance of a melt event, areas of disturbed soil should be stabilized at the end of each work day unless:
  - a. work will resume within 24 hours in the same area and no precipitation is forecast or;
  - b. the work is in disturbed areas that collect and retain runoff, such as open utility trenches, foundation excavations, or water management areas.
11. Use stone paths to stabilize access perimeters of buildings under construction and areas where construction vehicle traffic is anticipated. Stone paths should be a minimum 10 feet in width but wider as necessary to accommodate equipment.

## Maintenance

The site shall be inspected frequently to ensure that the erosion and sediment control plan is performing its winter stabilization function. If the site will not have earth disturbing activities ongoing during the "winter season", all bare exposed soil must be stabilized by established vegetation, straw or other acceptable mulch, matting, rock, or other approved material such as rolled erosion control products. Seeding of areas with mulch cover is preferred but seeding alone is not acceptable for proper stabilization.

Compliance inspections must be performed and reports filed properly in accordance with the SWPPP for all sites under a winter shutdown.

## References

---

1. Northeastern Illinois Soil and Sedimentation Control Steering Committee. October 1981. Procedures and Standards for Urban Soil Erosion and Sediment Control in Illinois.
2. J.F. Rushing, V.M. Moore, J.S. Tingle, Q. Mason, and T. McCaffery, 2005. Dust Abatement Methods for Lines of Communication and Base Camps in Temperate Climates. ERDC/GSL TR-05-23, October 2005.

# STANDARD AND SPECIFICATIONS FOR ANCHORED STABILIZATION MATTING



## Definition and Scope

A **temporary** or **permanent** protective covering placed on a prepared, seeded planting area that is anchored in place by staples or other means to aid in controlling erosion by absorbing rain splash energy and withstand overland flow as well as provide a microclimate to protect and promote seed establishment.

## Conditions Where Practice Applies

Anchored stabilization mats are required for seeded earthen slopes steeper than 3 horizontal to 1 vertical; in vegetated channels where the velocity of the design flow exceeds the allowable velocity for vegetation alone (usually greater than 5 feet per second); on streambanks and shorelines where moving water is likely to erode newly seeded or planted areas; and in areas where wind prevents standard mulching with straw. This standard does not apply to slopes stabilized with sod, rock riprap or hard armor material.

## Design Criteria

Slope Applications - Anchored stabilization mats for use on slopes are primarily used as mulch blankets where the mesh material is within the blanket or as a netting over previously placed mulch. These stabilization mats are NOT effective in preventing slope failures.

1. Required on all slopes steeper than 3:1
2. Matting will be designed for proper longevity need and strength based on intended use.
3. All installation details and directions will be included on the site erosion and sediment control plan and will follow manufactures specifications.

Channel Applications - Anchored stabilization mats, for use in supporting vegetation in flow channels, are generally a non-degradable, three dimensional plastic structure which can be filled with soil prior to planting. This structure provides a medium for root growth where the matting and roots become intertwined forming a continuous anchor for the vegetated lining.

1. Channel stabilization shall be based on the tractive force method.
2. For maximum design shear stresses less than 2 pounds per square foot, a temporary or bio-degradable mat may be used.
3. The design of the final matting shall be based on the mats ability to resist the tractive shear stress at bank full flow.
4. The installation details and procedures shall be included on the site erosion and sediment control plan and will follow manufacturers specifications.



## Construction Specifications

1. Prepare soil before installing matting by smoothing the surface, removing debris and large stone, and applying lime, fertilizer and seed. Refer to manufacturers installation details.
2. Begin at the top of the slope by anchoring the mat in a 6" deep x 6" wide trench. Backfill and compact the trench after stapling.
3. In channels or swales, begin at the downslope end, anchoring the mat at the bottom and top ends of the blanket. When another roll is needed, the upslope roll

should overlay the lower layer, shingle style, so that channel flows do not peel back the material.

4. Roll the mats down a slope with a minimum 4" overlap. Roll center mat in a channel in direction of water flow on bottom of the channel. Do not stretch blankets. Blankets shall have good continuous contact with the underlying soil throughout its entire length.
5. Place mats end over end (shingle style) with a 6" overlap, use a double row of staggered staples 4" apart to secure mats.
6. Full length edge of mats at top of side slopes must be anchored in 6" deep x 6" wide trench; backfill and compact the trench after stapling.
7. Mats on side slopes of a channel must be overlapped 4" over the center mat and stapled.
8. In high flow channel applications, a staple check slot is recommended at 30 to 40 foot intervals. Use a row of staples 4" apart over entire width of the channel. Place a second row 4" below the first row in a staggered pattern.
9. The terminal end of the mats must be anchored in a 6"x6" wide trench. Backfill and compact the trench after stapling.
10. Stapling and anchoring of blanket shall be done in accordance with the manufactures recommendations.

### **Maintenance**

Blanketed areas shall be inspected weekly and after each runoff event until perennial vegetation is established to a minimum uniform 80% coverage throughout the blanketed area. Damaged or displaced blankets shall be restored or replaced within 2 calendar days.



# STANDARD AND SPECIFICATIONS FOR LANDGRADING



## **Definition & Scope**

**Permanent** reshaping of the existing land surface by grading in accordance with an engineering topographic plan and specification to provide for erosion control and vegetative establishment on disturbed, reshaped areas.

## **Design Criteria**

The grading plan should be based upon the incorporation of building designs and street layouts that fit and utilize existing topography and desirable natural surrounding to avoid extreme grade modifications. Information submitted must provide sufficient topographic surveys and soil investigations to determine limitations that must be imposed on the grading operation related to slope stability, effect on adjacent properties and drainage patterns, measures for drainage and water removal, and vegetative treatment, etc.

Many municipalities and counties have regulations and design procedures already established for land grading and cut and fill slopes. Where these requirements exist, they shall be followed.

The plan must show existing and proposed contours of the area(s) to be graded. The plan shall also include practices for erosion control, slope stabilization, safe disposal of runoff water and drainage, such as waterways, lined ditches, reverse slope benches (include grade and cross section), grade stabilization structures, retaining walls, and surface and subsurface drains. The plan shall also include phasing of these practices. The following shall be incorporated into the plan:

1. Provisions shall be made to safely convey surface runoff to storm drains, protected outlets, or to stable water courses to ensure that surface runoff will not

damage slopes or other graded areas; see standards and specifications for Grassed Waterway, Diversion, or Grade Stabilization Structure.

2. Cut and fill slopes that are to be stabilized with grasses shall not be steeper than 2:1. When slopes exceed 2:1, special design and stabilization consideration are required and shall be adequately shown on the plans. (Note: Where the slope is to be mowed, the slope should be no steeper than 3:1, although 4:1 is preferred because of safety factors related to mowing steep slopes.)
3. Reverse slope benches or diversion shall be provided whenever the vertical interval (height) of any 2:1 slope exceeds 20 feet; for 3:1 slope it shall be increased to 30 feet and for 4:1 to 40 feet. Benches shall be located to divide the slope face as equally as possible and shall convey the water to a stable outlet. Soils, seeps, rock outcrops, etc., shall also be taken into consideration when designing benches.
  - A. Benches shall be a minimum of six feet wide to provide for ease of maintenance.
  - B. Benches shall be designed with a reverse slope of 6:1 or flatter to the toe of the upper slope and with a minimum of one foot in depth. Bench gradient to the outlet shall be between 2 percent and 3 percent, unless accompanied by appropriate design and computations.
  - C. The flow length within a bench shall not exceed 800 feet unless accompanied by appropriate design and computations; see Standard and Specifications for Diversion on page 3.9
4. Surface water shall be diverted from the face of all cut and/or fill slopes by the use of diversions, ditches and swales or conveyed downslope by the use of a designed structure, except where:
  - A. The face of the slope is or shall be stabilized and the face of all graded slopes shall be protected from surface runoff until they are stabilized.
  - B. The face of the slope shall not be subject to any concentrated flows of surface water such as from natural drainage ways, graded ditches, downspouts, etc.
  - C. The face of the slope will be protected by anchored stabilization matting, sod, gravel, riprap, or other stabilization method.

5. Cut slopes occurring in ripable rock shall be serrated as shown in Figure 4.9 on page 4.26. The serrations shall be made with conventional equipment as the excavation is made. Each step or serration shall be constructed on the contour and will have steps cut at nominal two-foot intervals with nominal three-foot horizontal shelves. These steps will vary depending on the slope ratio or the cut slope. The nominal slope line is 1 ½: 1. These steps will weather and act to hold moisture, lime, fertilizer, and seed thus producing a much quicker and longer-lived vegetative cover and better slope stabilization. Overland flow shall be diverted from the top of all serrated cut slopes and carried to a suitable outlet.
6. Subsurface drainage shall be provided where necessary to intercept seepage that would otherwise adversely affect slope stability or create excessively wet site conditions.
7. Slopes shall not be created so close to property lines as to endanger adjoining properties without adequately protecting such properties against sedimentation, erosion, slippage, settlement, subsidence, or other related damages.
8. Fill material shall be free of brush, rubbish, rocks, logs, stumps, building debris, and other objectionable material. It should be free of stones over two (2) inches in diameter where compacted by hand or mechanical tampers or over eight (8) inches in diameter where compacted by rollers or other equipment. Frozen material shall not be placed in the fill nor shall the fill material be placed on a frozen foundation.
9. Stockpiles, borrow areas, and spoil shall be shown on the plans and shall be subject to the provisions of this Standard and Specifications.
10. All disturbed areas shall be stabilized structurally or vegetatively in compliance with the Permanent Construction Area Planting Standard on page 4.42.
4. Areas to be filled shall be cleared, grubbed, and stripped of topsoil to remove trees, vegetation, roots, or other objectionable material.
5. Areas that are to be topsoiled shall be scarified to a minimum depth of four inches prior to placement of topsoil.
6. All fills shall be compacted as required to reduce erosion, slippage, settlement, subsidence, or other related problems. Fill intended to support buildings, structures, and conduits, etc., shall be compacted in accordance with local requirements or codes.
7. All fill shall be placed and compacted in layers not to exceed 9 inches in thickness.
8. Except for approved landfills or nonstructural fills, fill material shall be free of frozen particles, brush, roots, sod, or other foreign objectionable materials that would interfere with, or prevent, construction of satisfactory fills.
9. Frozen material or soft, mucky or highly compressible materials shall not be incorporated into fill slopes or structural fills.
10. Fill shall not be placed on saturated or frozen surfaces.
11. All benches shall be kept free of sediment during all phases of development.
12. Seeps or springs encountered during construction shall be handled in accordance with the Standard and Specification for Subsurface Drain on page 3.48 or other approved methods.
13. All graded areas shall be permanently stabilized immediately following finished grading.
14. Stockpiles, borrow areas, and spoil areas shall be shown on the plans and shall be subject to the provisions of this Standard and Specifications.

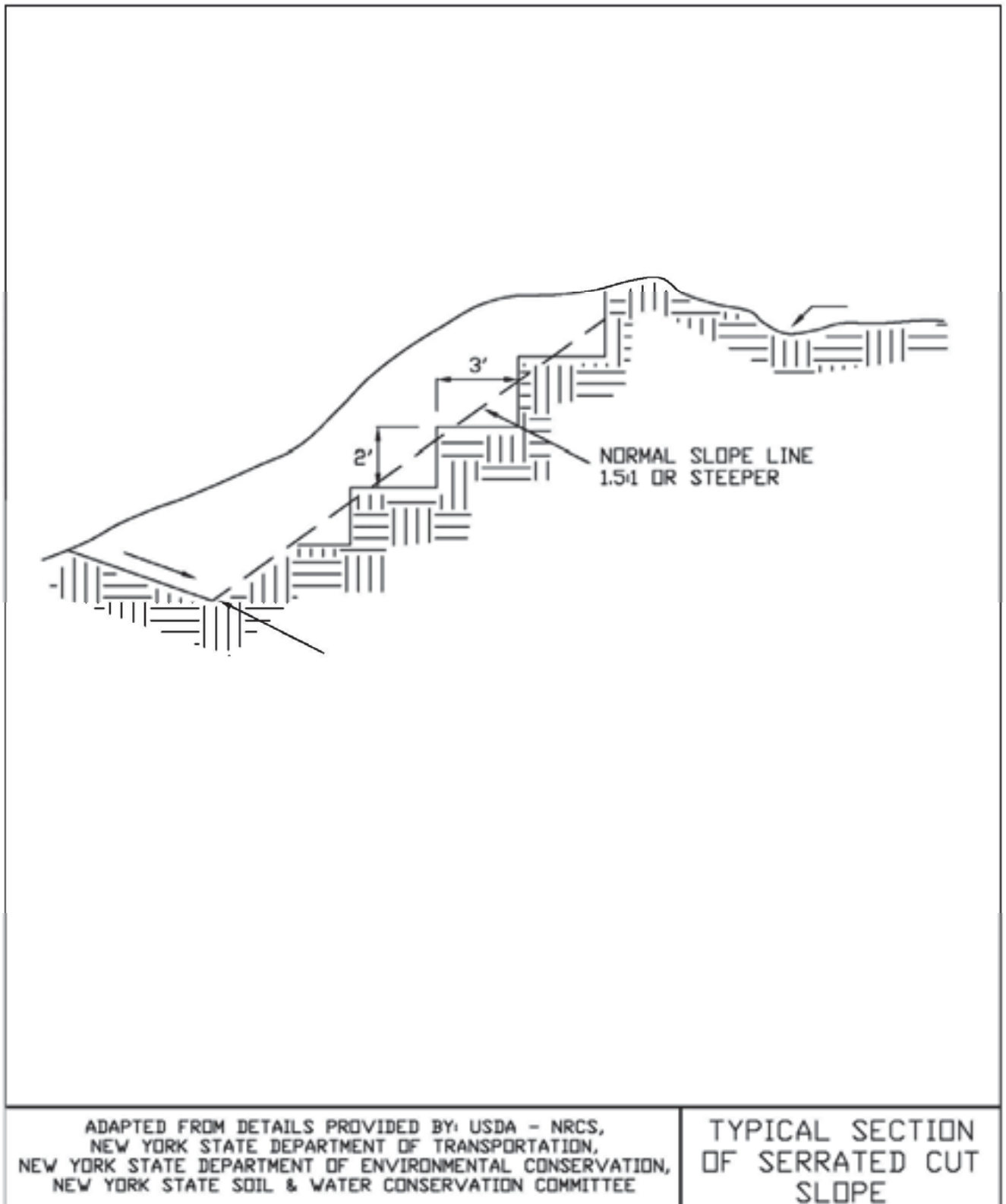
### **Construction Specifications**

See Figures 4.9 and 4.10 for details.

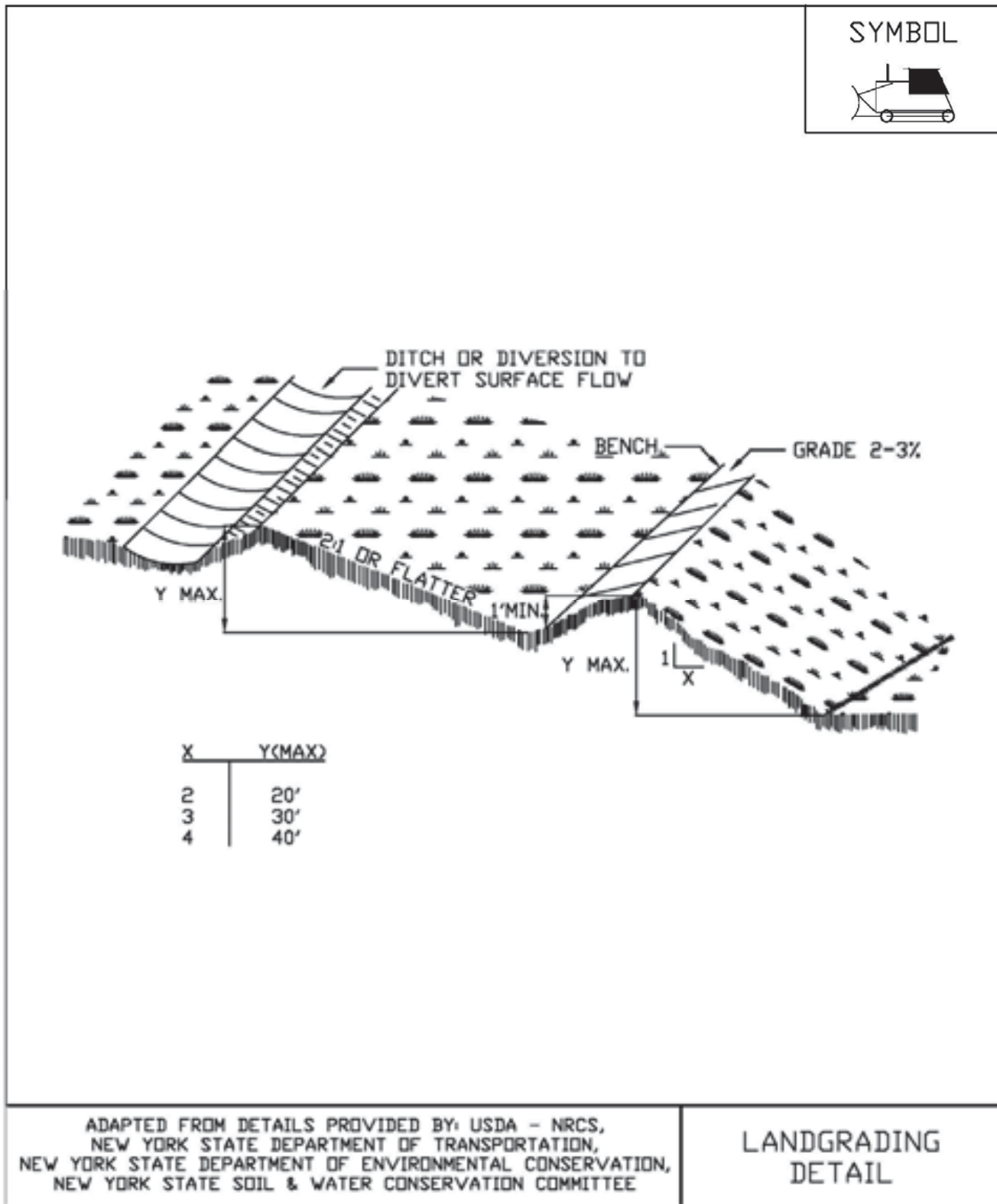
1. All graded or disturbed areas, including slopes, shall be protected during clearing and construction in accordance with the erosion and sediment control plan until they are adequately stabilized.
2. All erosion and sediment control practices and measures shall be constructed, applied and maintained in accordance with the erosion and sediment control plan and these standards.
3. Topsoil required for the establishment of vegetation shall be stockpiled in amount necessary to complete finished grading of all exposed areas.



**Figure 4.9**  
**Typical Section of Serrated Cut Slope**



**Figure 4.10**  
**Landgrading**



**Figure 4.11**  
**Landgrading - Construction Specifications**

| <u>CONSTRUCTION SPECIFICATIONS</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                       |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------|
| <ol style="list-style-type: none"> <li>1. ALL GRADED OR DISTURBED AREAS INCLUDING SLOPES SHALL BE PROTECTED DURING CLEARING AND CONSTRUCTION IN ACCORDANCE WITH THE APPROVED EROSION AND SEDIMENT CONTROL PLAN UNTIL THEY ARE PERMANENTLY STABILIZED.</li> <li>2. ALL SEDIMENT CONTROL PRACTICES AND MEASURES SHALL BE CONSTRUCTED, APPLIED AND MAINTAINED IN ACCORDANCE WITH THE APPROVED EROSION AND SEDIMENT CONTROL PLAN.</li> <li>3. TOPSOIL REQUIRED FOR THE ESTABLISHMENT OF VEGETATION SHALL BE STOCKPILED IN AMOUNT NECESSARY TO COMPLETE FINISHED GRADING OF ALL EXPOSED AREAS.</li> <li>4. AREAS TO BE FILLED SHALL BE CLEARED, GRUBBED, AND STRIPPED OF TOPSOIL TO REMOVE TREES, VEGETATION, ROOTS OR OTHER OBJECTIONABLE MATERIAL.</li> <li>5. AREAS WHICH ARE TO BE TOPSOILED SHALL BE SCARIFIED TO A MINIMUM DEPTH OF FOUR INCHES PRIOR TO PLACEMENT OF TOPSOIL.</li> <li>6. ALL FILLS SHALL BE COMPACTED AS REQUIRED TO REDUCE EROSION, SLIPPAGE, SETTLEMENT, SUBSIDENCE OR OTHER RELATED PROBLEMS. FILL INTENDED TO SUPPORT BUILDINGS, STRUCTURES AND CONDUITS, ETC. SHALL BE COMPACTED IN ACCORDANCE WITH LOCAL REQUIREMENTS OR CODES.</li> <li>7. ALL FILL SHALL BE PLACED AND COMPACTED IN LAYERS NOT TO EXCEED 9 INCHES IN THICKNESS.</li> <li>8. EXCEPT FOR APPROVED LANDFILLS, FILL MATERIAL SHALL BE FREE OF FROZEN PARTICLES, BRUSH, ROOTS, SOD, OR OTHER FOREIGN OR OTHER OBJECTIONABLE MATERIALS THAT WOULD INTERFERE WITH OR PREVENT CONSTRUCTION OF SATISFACTORY FILLS.</li> <li>9. FROZEN MATERIALS OR SOFT, MUCKY OR HIGHLY COMPRESSIBLE MATERIALS SHALL NOT BE INCORPORATED IN FILLS.</li> <li>10. FILL SHALL NOT BE PLACED ON SATURATED OR FROZEN SURFACES.</li> <li>11. ALL BENCHES SHALL BE KEPT FREE OF SEDIMENT DURING ALL PHASES OF DEVELOPMENT.</li> <li>12. SEEPS OR SPRINGS ENCOUNTERED DURING CONSTRUCTION SHALL BE HANDLED IN ACCORDANCE WITH THE STANDARD AND SPECIFICATION FOR SUBSURFACE DRAIN OR OTHER APPROVED METHOD.</li> <li>13. ALL GRADED AREAS SHALL BE PERMANENTLY STABILIZED IMMEDIATELY FOLLOWING FINISHED GRADING.</li> <li>14. STOCKPILES, BORROW AREAS AND SPOIL AREAS SHALL BE SHOWN ON THE PLANS AND SHALL BE SUBJECT TO THE PROVISIONS OF THIS STANDARD AND SPECIFICATION.</li> </ol> |                                       |
| ADAPTED FROM DETAILS PROVIDED BY: USDA - NRCS,<br>NEW YORK STATE DEPARTMENT OF TRANSPORTATION,<br>NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION,<br>NEW YORK STATE SOIL & WATER CONSERVATION COMMITTEE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | <b>LANDGRADING<br/>SPECIFICATIONS</b> |

# STANDARD AND SPECIFICATIONS FOR LOOSE STABILIZATION BLANKETS



## Definition and Scope

Blankets of various materials placed pneumatically, hydraulically, or other means on a prepared planting area or a critical area where existing vegetation can remain to reduce rain splash and sheet erosion and promote vegetative stabilization.

## Conditions Where Practice Applies

Loose blankets are an appropriate stabilization practice for any soil surface that is rocky, frozen, flat, or steep. They can be used on streambanks, road cuts and embankments, and construction site areas where stormwater runoff occurs as sheet flow. They should not be used in areas of concentrated flow.

## Design Criteria

### Compost Blanket

Material: The compost infill shall be well decomposed (matured at least 3 months), weed-free, organic matter. It shall be aerobically composted, possess no objectionable odors, and contain less than 1%, by dry weight, of man-made foreign matter. The physical parameters of the compost shall meet the standards listed in Table 5.2 - Compost Standards Table. **Note: All biosolids composts produced in New York State (or approved for importation) must meet NYS DEC's 6 NYCRR Part 360 (Soild Waste Management Facilities) requirements. The Part 360 requirements are equal to or more stringent than 40 CFR Part 503 which ensure safe standards for pathogen reduction and heavy metal content. When using compost blankets adjacent to surface waters, the compost should have a low nutrient value.**

Placement: The method of application and depth of compost depend upon site conditions. Vegetation of the compost blanket is generally archived by incorporating seed into the compost before it is applied. However, seeding may occur after the application if needed.

The compost application rate will be in accordance with the following table. Compost is not recommended for slopes steeper than 2H:1V. Slopes with problem soils and more runoff will require greater application rates.

| Compost Application Rates |                           |                            |
|---------------------------|---------------------------|----------------------------|
| Slope Length (ft)         | <3H:1V Slopes             | 3H:1V to 2H:1V Slopes      |
| 20 or less                | 270 cy/acre<br>(2" Layer) | 540 cy/acre<br>(4" Layer)  |
| 20 to 60                  | 405 cy/acre<br>(3" Layer) | 675 cy/acre<br>(5" Layer)  |
| 60 to 100                 | 540 cy/acre<br>(4" Layer) | 810 cy/acre<br>(6" Layer)* |

\* For slopes between 2H:1V and 1H:1V use this rate with a max. slope length of 40 ft.

## Construction Specifications

1. Compost shall be placed evenly and must provide 100% soil coverage (no soil visible). On highly unstable soils, use compost in conjunction with appropriate structural measures.
2. Spread the compost uniformly to the design thickness by hand or mechanically (e.g. with a manure spreader, front end loader, dozer, pneumatic blower, etc.) and then track (compact) the compost layer using a bulldozer or other appropriate equipment.
3. When using a pneumatic (blower) unit, shoot the compost directly at soil, to provide a tighter interface between the soil and compost and prevent water from moving between the two layers.
4. Apply compost layer approximately 3 feet beyond the top of the slope or overlap it into existing vegetation.
5. Follow by seeding or ornamental planting as specified.
6. When planting immediate grass, wildflower, or legume seeding or ornamental planting, use only a well composted product that contains no substances toxic to plants.

7. Very coarse composts should be avoided if the slope is to be landscaped or seeded, as it will make planting and crop establishment more difficult. Composts containing fibrous particles that range in size produce a more stable mat.

### **Hydraulically Applied Blankets**

These blankets are formed by mixing different types of materials with water and are then applied using standard hydroseeding equipment. These blankets should not be used in areas of concentrated flow such as ditches and channels.

- A. **Bonded Fiber Matrix (BFM)** - This method makes use of a cross-linked hydrocolloid tackifier to bond thermally processed wood fibers. Application rates vary according to site conditions. For slopes up to 3H:1V the BFM should be applied at a rate of 3,000 lb/acre. Steeper slopes may need as much as 4,000 lb/acre in accordance with the manufacturer's recommendations.

BFMs should only be used when no rain is forecast for at least 48 hours following the application. This is to allow the tackifier sufficient time to cure properly. Once properly applied, a BFM is very effective in preventing accelerated erosion. **Bonded Fiber Matrix should not be applied between September 30 and April 1 to allow for proper curing of the polymer.**

- B. **Flexible Growth Medium (FGM)** - This method has the added component of 1/2 inch long, crimped manmade fibers which add a mechanical bond to the chemical bond provided by BFMs. This increases the blanket's resistance to both raindrop impact and erosion due to runoff. Unlike BFMs, a flexible growth medium typically does not require a curing time to be effective. Properly applied, an FGM is also very effective.

There is no need to smooth the slope prior to application. In fact some roughening of the surface (either natural or mechanically induced) is preferable. However, large rocks ( $\geq 9$  inches) and existing rills should be removed prior to application. Mixing and application rates should follow manufacturer's recommendations.

- C. **Polymer Stabilized Fiber Matrix (PSFM)** - PSFMs make use of a linear soil stabilization tackifier that works directly on soil to maintain soil structure, maintain pore space capacity and flocculate dislodged sediment that will significantly reduce runoff turbidity. PSFMs can be used in re-vegetation applications and for site winterization and/or dormant seeding - fall planting for spring germination - applications. Application rates vary according to site conditions and

should be in accordance with manufacturers recommendations.

### **Construction Specifications**

BFMs, FGMs and PSFMs are typically applied in two stages. Unless specifically recommended to be applied in one application by the manufacturer, the seed mixture and soil amendments should be applied first. If the seed is applied at the same time as the hydraulically applied blankets, the bonded fibers may keep the seed from making sufficient contact with the soil to germinate. After the seed mixture is applied, the hydraulically applied blankets should be sprayed over the area at the required application rate, according to the manufactures recommendations.



# STANDARD AND SPECIFICATIONS FOR MULCHING



Remove all undesirable stones and other debris to meet the needs of the anticipated land use and maintenance required.

Apply mulch after soil amendments and planting is accomplished or simultaneously if hydroseeding is used.

Select appropriate mulch material and application rate or material needs. Hay mulch shall not be used in wetlands or in areas of permanent seeding. Clean straw mulch is preferred alternative in wetland application. Determine local availability.

Select appropriate mulch anchoring material.

NOTE: The best combination for grass/legume establishment is straw (cereal grain) mulch applied at 2 ton/acre (90 lbs./1000sq.ft.) and anchored with wood fiber mulch (hydromulch) at 500 – 750 lbs./acre (11 – 17 lbs./1000 sq. ft.). The wood fiber mulch must be applied through a hydroseeder immediately after mulching.

## **Definition and Scope**

Applying coarse plant residue or chips, or other suitable materials, to cover the soil surface to provide initial erosion control while a seeding or shrub planting is establishing. Mulch will conserve moisture and modify the surface soil temperature and reduce fluctuation of both. Mulch will prevent soil surface crusting and aid in weed control. Mulch can also be used alone for temporary stabilization in non-growing months. Use of stone as a mulch could be more permanent and should not be limited to non-growing months.

## **Conditions Where Practice Applies**

On soils subject to erosion and on new seedings and shrub plantings. Mulch is useful on soils with low infiltration rates by retarding runoff.

## **Criteria**

Site preparation prior to mulching requires the installation of necessary erosion control or water management practices and drainage systems.

Slope, grade and smooth the site to fit needs of selected mulch products.





**Table 4.2**  
**Guide to Mulch Materials, Rates, and Uses**

| <b>Mulch Material</b>                              | <b>Quality Standards</b>                                                           | <b>per 1000 Sq. Ft.</b>        | <b>per Acre</b>        | <b>Depth of Application</b> | <b>Remarks</b>                                                                                                                                                                                                                         |
|----------------------------------------------------|------------------------------------------------------------------------------------|--------------------------------|------------------------|-----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Wood chips or shavings                             | Air-dried. Free of objectionable coarse material                                   | 500-900 lbs.                   | 10-20 tons             | 2-7"                        | Used primarily around shrub and tree plantings and recreation trails to inhibit weed competition. Resistant to wind blowing. Decomposes slowly.                                                                                        |
| Wood fiber cellulose (partly digested wood fibers) | Made from natural wood usually with green dye and dispersing agent                 | 50 lbs.                        | 2,000 lbs.             | —                           | Apply with hydromulcher. No tie down required. Less erosion control provided than 2 tons of hay or straw.                                                                                                                              |
| Gravel, Crushed Stone or Slag                      | Washed; Size 2B or 3A—1 1/2"                                                       | 9 cu. yds.                     | 405 cu. yds.           | 3"                          | Excellent mulch for short slopes and around plants and ornamentals. Use 2B where subject to traffic. (Approximately 2,000 lbs./cu. yd.). Frequently used over filter fabric for better weed control.                                   |
| Hay or Straw                                       | Air-dried; free of undesirable seeds & coarse materials                            | 90-100 lbs. 2-3 bales          | 2 tons (100-120 bales) | cover about 90% surface     | Use small grain straw where mulch is maintained for more than three months. Subject to wind blowing unless anchored. Most commonly used mulching material. Provides the best micro-environment for germinating seeds.                  |
| Jute twisted yarn                                  | Undyed, unbleached plain weave. Warp 78 ends/yd., Weft 41 ends/yd. 60-90 lbs./roll | 48" x 50 yds. or 48" x 75 yds. | —                      | —                           | Use without additional mulch. Tie down as per manufacturers specifications. Good for center line of concentrated water flow.                                                                                                           |
| Excelsior wood fiber mats                          | Interlocking web of excelsior fibers with photodegradable plastic netting          | 4' x 112.5' or 8' x 112.5'     | —                      | —                           | Use without additional mulch. Excellent for seeding establishment. Anchor as per manufacturers specifications. Approximately 72 lbs./roll for excelsior with plastic on both sides. Use two sided plastic for centerline of waterways. |
| Straw or coconut fiber, or combination             | Photodegradable plastic net on one or two sides                                    | Most are 6.5 ft. x 3.5 ft.     | 81 rolls               | —                           | Designed to tolerate higher velocity water flow, centerlines of waterways, 60 sq. yds. per roll.                                                                                                                                       |

**Table 4.3**  
**Mulch Anchoring Guide**

| Anchoring Method or Material | Kind of Mulch to be Anchored | How to Apply                                                                                                                                                                                                                                                                                                                                                              |
|------------------------------|------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Peg and Twine             | Hay or straw                 | After mulching, divide areas into blocks approximately 1 sq. yd. in size. Drive 4-6 pegs per block to within 2" to 3" of soil surface. Secure mulch to surface by stretching twine between pegs in criss-cross pattern on each block. Secure twine around each peg with 2 or more tight turns. Drive pegs flush with soil. Driving stakes into ground tightens the twine. |
| 2. Mulch netting             | Hay or straw                 | Staple the light-weight paper, jute, wood fiber, or plastic nettings to soil surface according to manufacturer's recommendations. Should be biodegradable. Most products are not suitable for foot traffic.                                                                                                                                                               |
| 3. Wood cellulose fiber      | Hay or straw                 | Apply with hydroseeder immediately after mulching. Use 500 lbs. wood fiber per acre. Some products contain an adhesive material ("tackifier"), possibly advantageous.                                                                                                                                                                                                     |
| 4. Mulch anchoring tool      | Hay or straw                 | Apply mulch and pull a mulch anchoring tool (blunt, straight discs) over mulch as near to the contour as possible. Mulch material should be "tucked" into soil surface about 3".                                                                                                                                                                                          |
| 5. Tackifier                 | Hay or straw                 | Mix and apply polymeric and gum tackifiers according to manufacturer's instructions. Avoid application during rain. A 24-hour curing period and a soil temperature higher than 45 <sup>0</sup> Fahrenheit are required.                                                                                                                                                   |

# STANDARD AND SPECIFICATIONS FOR PERMANENT CONSTRUCTION AREA PLANTING



## Definition & Scope

Establishing **permanent** grasses with other forbs and/or shrubs to provide a minimum 80% perennial vegetative cover on areas disturbed by construction and critical areas to reduce erosion and sediment transport. Critical areas may include but are not limited to steep excavated cut or fill slopes as well as eroding or denuded natural slopes and areas subject to erosion.

## Conditions Where Practice Applies

This practice applies to all disturbed areas void of, or having insufficient, cover to prevent erosion and sediment transport. See additional standards for special situations such as sand dunes and sand and gravel pits.

## Criteria

All water control measures will be installed as needed prior to final grading and seedbed preparation. Any severely compacted sections will require chiseling or disking to provide an adequate rooting zone, to a minimum depth of 12", see Soil Restoration Standard. The seedbed must be prepared to allow good soil to seed contact, with the soil not too soft and not too compact. Adequate soil moisture must be present to accomplish this. If surface is powder dry or sticky wet, postpone operations until moisture changes to a favorable condition. If seeding is accomplished within 24 hours of final grading, additional scarification is generally not needed, especially on ditch or stream banks. Remove all stones and other debris from the surface that are greater than 4 inches, or that will interfere with future mowing or maintenance.

Soil amendments should be incorporated into the upper 2 inches of soil when feasible. **The soil should be tested to determine the amounts of amendments needed.** Apply

ground agricultural limestone to attain a pH of 6.0 in the upper 2 inches of soil. If soil must be fertilized before results of a soil test can be obtained to determine fertilizer needs, apply commercial fertilizer at 600 lbs. per acre of 5-5-10 or equivalent. If manure is used, apply a quantity to meet the nutrients of the above fertilizer. This requires an appropriate manure analysis prior to applying to the site. Do not use manure on sites to be planted with birdsfoot trefoil or in the path of concentrated water flow.

Seed mixtures may vary depending on location within the state and time of seeding. Generally, warm season grasses should only be seeded during early spring, April to May. These grasses are primarily used for vegetating excessively drained sands and gravels. See Standard and Specification for Sand and Gravel Mine Reclamation. Other grasses may be seeded any time of the year when the soil is not frozen and is workable. When legumes such as birdsfoot trefoil are included, spring seeding is preferred. See Table 4.4, "Permanent Construction Area Planting Mixture Recommendations" for additional seed mixtures.

| <u>General Seed Mix:</u>                                                                                                                                                                                                |                                       |                  |                         |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------|------------------|-------------------------|
|                                                                                                                                                                                                                         | <b>Variety</b>                        | <b>lbs./acre</b> | <b>lbs/1000 sq. ft.</b> |
| Red Clover <sup>1</sup> <u>OR</u>                                                                                                                                                                                       | Acclaim, Rally, Red Head II, Renegade | 8 <sup>2</sup>   | 0.20                    |
| Common white clover <sup>1</sup>                                                                                                                                                                                        | Common                                | 8                | 0.20                    |
| <u>PLUS</u>                                                                                                                                                                                                             |                                       |                  |                         |
| Creeping Red Fescue                                                                                                                                                                                                     | Common                                | 20               | 0.45                    |
| <u>PLUS</u>                                                                                                                                                                                                             |                                       |                  |                         |
| Smooth Bromegrass <u>OR</u>                                                                                                                                                                                             | Common                                | 2                | 0.05                    |
| Ryegrass (perennial)                                                                                                                                                                                                    | Pennfine/Linn                         | 5                | 0.10                    |
| <sup>1</sup> add inoculant immediately prior to seeding<br><sup>2</sup> Mix 4 lbs each of Empire and Pardee OR 4 lbs of Birdsfoot and 4 lbs white clover per acre. All seeding rates are given for Pure Live Seed (PLS) |                                       |                  |                         |

Pure Live Seed, or (PLS) refers to the amount of live seed in a lot of bulk seed. Information on the seed bag label includes the type of seed, supplier, test date, source of seed, purity, and germination. Purity is the percentage of pure seed. Germination is the percentage of pure seed that will produce normal plants when planted under favorable conditions.

To compute Pure Live Seed multiply the “germination percent” times the “purity” and divide that by 100 to get Pure Live Seed.

$$\text{Pure Live Seed (PLS)} = \frac{\% \text{ Germination} \times \% \text{ Purity}}{100}$$

For example, the PLS for a lot of Kentucky Blue grass with 75% purity and 96% germination would be calculated as follows:

$$\frac{(96) \times (75)}{100} = 72\% \text{ Pure Live Seed}$$

For 10lbs of PLS from this lot =

$$\frac{10}{0.72} = 13.9 \text{ lbs}$$

Therefore, 13.9 lbs of seed is the actual weight needed to meet 10lbs PSL from this specific seed lot.

Time of Seeding: The optimum timing for the general seed mixture is early spring. Permanent seedings may be made any time of year if properly mulched and adequate moisture is provided. Late June through early August is not a good time to seed, but may facilitate covering the land without additional disturbance if construction is completed. Portions of the seeding may fail due to drought and heat. These areas may need reseeding in late summer/fall or the following spring.

Method of seeding: Broadcasting, drilling, cultipack type seeding, or hydroseeding are acceptable methods. Proper soil to seed contact is key to successful seedings.

Mulching: Mulching is essential to obtain a uniform stand of seeded plants. Optimum benefits of mulching new seedings are obtained with the use of small grain straw applied at a rate of 2 tons per acre, and anchored with a netting or tackifier. See the Standard and Specifications for Mulching for choices and requirements.

Irrigation: Watering may be essential to establish a new seeding when a drought condition occurs shortly after a new seeding emerges. Irrigation is a specialized practice and care must be taken not to exceed the application rate for the soil or subsoil. When disconnecting irrigation pipe, be sure pipes are drained in a safe manor, not creating an erosion concern.



80% Perennial Vegetative Cover



50% Perennial Vegetative Cover

**Table 4.4  
Permanent Construction Area Planting Mixture Recommendations**

| Seed Mixture                                                                                                                                                                                                                                                                                                                           | Variety                                        | Rate in lbs./acre (PLS) | Rate in lbs./1,000 ft <sup>2</sup> |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------|-------------------------|------------------------------------|
| <b>Mix #1</b>                                                                                                                                                                                                                                                                                                                          |                                                |                         |                                    |
| Creeping red fescue                                                                                                                                                                                                                                                                                                                    | Ensylva, Pennlawn, Boreal                      | 10                      | .25                                |
| Perennial ryegrass                                                                                                                                                                                                                                                                                                                     | Pennfine, Linn                                 | 10                      | .25                                |
| *This mix is used extensively for shaded areas.                                                                                                                                                                                                                                                                                        |                                                |                         |                                    |
| <b>Mix #2</b>                                                                                                                                                                                                                                                                                                                          |                                                |                         |                                    |
| Switchgrass                                                                                                                                                                                                                                                                                                                            | Shelter, Pathfinder, Trailblazer, or Blackwell | 20                      | .50                                |
| *This rate is in pure live seed, this would be an excellent choice along the upland edge of a wetland to filter runoff and provide wildlife benefits. In areas where erosion may be a problem, a companion seeding of sand lovegrass should be added to provide quick cover at a rate of 2 lbs. per acre (0.05 lbs. per 1000 sq. ft.). |                                                |                         |                                    |
| <b>Mix #3</b>                                                                                                                                                                                                                                                                                                                          |                                                |                         |                                    |
| Switchgrass                                                                                                                                                                                                                                                                                                                            | Shelter, Pathfinder, Trailblazer, or Blackwell | 4                       | .10                                |
| Big bluestem                                                                                                                                                                                                                                                                                                                           | Niagara                                        | 4                       | .10                                |
| Little bluestem                                                                                                                                                                                                                                                                                                                        | Aldous or Camper                               | 2                       | .05                                |
| Indiangrass                                                                                                                                                                                                                                                                                                                            | Rumsey                                         | 4                       | .10                                |
| Coastal panicgrass                                                                                                                                                                                                                                                                                                                     | Atlantic                                       | 2                       | .05                                |
| Sideoats grama                                                                                                                                                                                                                                                                                                                         | El Reno or Trailway                            | 2                       | .05                                |
| Wildflower mix                                                                                                                                                                                                                                                                                                                         |                                                | .50                     | .01                                |
| *This mix has been successful on sand and gravel plantings. It is very difficult to seed without a warm season grass seeder such as a Truax seed drill. Broadcasting this seed is very difficult due to the fluffy nature of some of the seed, such as bluestems and indiangrass.                                                      |                                                |                         |                                    |
| <b>Mix #4</b>                                                                                                                                                                                                                                                                                                                          |                                                |                         |                                    |
| Switchgrass                                                                                                                                                                                                                                                                                                                            | Shelter, Pathfinder, Trailblazer, or Blackwell | 10                      | .25                                |
| Coastal panicgrass                                                                                                                                                                                                                                                                                                                     | Atlantic                                       | 10                      | .25                                |
| *This mix is salt tolerant, a good choice along the upland edge of tidal areas and roadsides.                                                                                                                                                                                                                                          |                                                |                         |                                    |
| <b>Mix #5</b>                                                                                                                                                                                                                                                                                                                          |                                                |                         |                                    |
| Saltmeadow cordgrass ( <i>Spartina patens</i> )—This grass is used for tidal shoreline protection and tidal marsh restoration. It is planted by vegetative stem divisions.                                                                                                                                                             |                                                |                         |                                    |
| 'Cape' American beachgrass can be planted for sand dune stabilization above the saltmeadow cordgrass zone.                                                                                                                                                                                                                             |                                                |                         |                                    |
| <b>Mix #6</b>                                                                                                                                                                                                                                                                                                                          |                                                |                         |                                    |
| Creeping red fescue                                                                                                                                                                                                                                                                                                                    | Ensylva, Pennlawn, Boreal                      | 20                      | .45                                |
| Chewings Fescue                                                                                                                                                                                                                                                                                                                        | Common                                         | 20                      | .45                                |
| Perennial ryegrass                                                                                                                                                                                                                                                                                                                     | Pennfine, Linn                                 | 5                       | .10                                |
| Red Clover                                                                                                                                                                                                                                                                                                                             | Common                                         | 10                      | .45                                |
| *General purpose erosion control mix. Not to be used for a turf planting or play grounds.                                                                                                                                                                                                                                              |                                                |                         |                                    |

# STANDARD AND SPECIFICATIONS FOR TEMPORARY CONSTRUCTION AREA SEEDING



## **Definition & Scope**

Providing temporary erosion control protection to disturbed areas and/or localized critical areas for an interim period by covering all bare ground that exists as a result of construction activities or a natural event. Critical areas may include but are not limited to steep excavated cut or fill slopes and any disturbed, denuded natural slopes subject to erosion.

## **Conditions Where Practice Applies**

Temporary seedings may be necessary on construction sites to protect an area, or section, where final grading is complete, when preparing for winter work shutdown, or to provide cover when permanent seedings are likely to fail due to mid-summer heat and drought. The intent is to provide temporary protective cover during temporary shutdown of construction and/or while waiting for optimal planting time.

## **Criteria**

Water management practices must be installed as appropriate for site conditions. The area must be rough graded and slopes physically stable. Large debris and rocks are usually removed. Seedbed must be seeded within 24 hours of disturbance or scarification of the soil surface will be necessary prior to seeding.

Fertilizer or lime are not typically used for temporary seedings.

IF: Spring or summer or early fall, then seed the area with ryegrass (annual or perennial) at 30 lbs. per acre (Approximately 0.7 lb./1000 sq. ft. or use 1 lb./1000 sq. ft.).

IF: Late fall or early winter, then seed Certified 'Aroostook' winter rye (cereal rye) at 100 lbs. per acre (2.5 lbs./1000 sq. ft.).

Any seeding method may be used that will provide uniform application of seed to the area and result in relatively good soil to seed contact.

Mulch the area with hay or straw at 2 tons/acre (approx. 90 lbs./1000 sq. ft. or 2 bales). Quality of hay or straw mulch allowable will be determined based on long term use and visual concerns. Mulch anchoring will be required where wind or areas of concentrated water are of concern. Wood fiber hydromulch or other sprayable products approved for erosion control (nylon web or mesh) may be used if applied according to manufacturers' specification. Caution is advised when using nylon or other synthetic products. They may be difficult to remove prior to final seeding and can be a hazard to young wildlife species.

# STANDARD AND SPECIFICATIONS FOR TOPSOILING



## **Definition & Scope**

Spreading a specified quality and quantity of topsoil materials on graded or constructed subsoil areas to provide acceptable plant cover growing conditions, thereby reducing erosion; to reduce irrigation water needs; and to reduce the need for nitrogen fertilizer application.

## **Conditions Where Practice Applies**

Topsoil is applied to subsoils that are droughty (low available moisture for plants), stony, slowly permeable, salty or extremely acid. It is also used to backfill around shrub and tree transplants. This standard does not apply to wetland soils.

## **Design Criteria**

1. Preserve existing topsoil in place where possible, thereby reducing the need for added topsoil.
2. Conserve by stockpiling topsoil and friable fine textured subsoils that must be stripped from the excavated site and applied after final grading where vegetation will be established. Topsoil stockpiles must be stabilized. Stockpile surfaces can be stabilized by vegetation, geotextile or plastic covers. This can be aided by orientating the stockpile lengthwise into prevailing winds.
3. Refer to USDA Natural Resource Conservation Service soil surveys or soil interpretation record sheets for further soil texture information for selecting appropriate design topsoil depths.

## **Site Preparation**

1. As needed, install erosion and sediment control practices such as diversions, channels, sediment traps, and stabilizing measures, or maintain if already installed.
2. Complete rough grading and final grade, allowing for depth of topsoil to be added.
3. Scarify all compact, slowly permeable, medium and fine textured subsoil areas. Scarify at approximately right angles to the slope direction in soil areas that are steeper than 5 percent. Areas that have been overly compacted shall be decompact in accordance with the Soil Restoration Standard.
4. Remove refuse, woody plant parts, stones over 3 inches in diameter, and other litter.

## **Topsoil Materials**

1. Topsoil shall have at least 6 percent by weight of fine textured stable organic material, and no greater than 20 percent. Muck soil shall not be considered topsoil.
2. Topsoil shall have not less than 20 percent fine textured material (passing the NO. 200 sieve) and not more than 15 percent clay.
3. Topsoil treated with soil sterilants or herbicides shall be so identified to the purchaser.
4. Topsoil shall be relatively free of stones over 1 1/2 inches in diameter, trash, noxious weeds such as nut sedge and quackgrass, and will have less than 10 percent gravel.
5. Topsoil containing soluble salts greater than 500 parts per million shall not be used.
6. Topsoil may be manufactured as a mixture of a mineral component and organic material such as compost.

## **Application and Grading**

1. Topsoil shall be distributed to a uniform depth over the area. It shall not be placed when it is partly frozen, muddy, or on frozen slopes or over ice, snow, or standing water puddles.
2. Topsoil placed and graded on slopes steeper than 5 percent shall be promptly fertilized, seeded, mulched, and stabilized by “tracking” with suitable equipment.
3. Apply topsoil in the amounts shown in Table 4.7 below:

| <b>Table 4.7 - Topsoil Application Depth</b>               |                       |                              |
|------------------------------------------------------------|-----------------------|------------------------------|
| <b>Site Conditions</b>                                     | <b>Intended Use</b>   | <b>Minimum Topsoil Depth</b> |
| 1. Deep sand or loamy sand                                 | Mowed lawn            | 6 in.                        |
|                                                            | Tall legumes, unmowed | 2 in.                        |
|                                                            | Tall grass, unmowed   | 1 in.                        |
| 2. Deep sandy loam                                         | Mowed lawn            | 5 in.                        |
|                                                            | Tall legumes, unmowed | 2 in.                        |
|                                                            | Tall grass, unmowed   | none                         |
| 3. Six inches or more: silt loam, clay loam, loam, or silt | Mowed lawn            | 4 in.                        |
|                                                            | Tall legumes, unmowed | 1 in.                        |
|                                                            | Tall grass, unmowed   | 1 in.                        |



# STANDARD AND SPECIFICATIONS FOR TREES, SHRUBS, AND VINES



## **Definition & Scope**

Establishing trees, shrubs, and vines or selectively reducing stand density and trimming woody plants to protect the soil and plant resources, improve an area for recreation and increase the attractiveness and usefulness of areas.

## **Conditions Where Practice Applies**

On any area planned for recreation or landscape use such as yard areas, leisure areas, picnic areas, and park lands providing outdoor recreational opportunities.

## **Criteria and Specifications**

### 1. Planting nursery stock

A. Select species to serve the intended purpose. See Appendix G, Table G.1, “Trees Suitable for Landscape and Conservation Plantings in New York.” Where planting of trees is to be done in recreation areas, use those species resistant to compaction listed in Table G.2, “Susceptibility of Tree Species to Compaction” whenever possible.

### B. Plant Materials

1) Plants shall conform to the species, variety, size, number, and conditions as stated in a conservation plan or on a plant list shown on landscape drawings. “American Standard for Nursery Stock,” by American Association of Nurserymen, shall be used to develop the plant list for landscape drawings and to check quality of plant materials.

2) Durable, legible labels with the scientific and common name and cultivar shall be securely

attached to plants, bundles of seedlings, containers, and/or flats.

### C. Plant Protection

Prior to delivery, the trunk, branches, and foliage of the plants shall be sprayed with non-toxic antidesiccant, applied according to the manufacturer’s recommendations. This does not apply to state nursery seedlings.

### D. Planting Time

Deciduous trees and shrubs: April 1 to June 1 and October 15 to December 15. Evergreen trees and shrubs: April 1 to June 1 and September 1 to November 15.

### E. Spacing

Plant all trees and shrubs well back from buildings to allow for mature crown size. The following are guides for planning:

|                  |                                                                                               |
|------------------|-----------------------------------------------------------------------------------------------|
| Large Trees      | 50-60 feet apart                                                                              |
| Small Trees      | 20-30 feet apart                                                                              |
| Columnar Species | 6-8 feet apart                                                                                |
| Hedges           | 1-4 feet apart                                                                                |
| Shrubs           | For clumps, plan spacing so mature shrubs will be touching or overlapping by only 1 or 2 feet |

### F. Site Preparation

1) Individual sites for planting seedlings can be prepared by scalping the sod away from a four foot square area where the seedling is to be planted.

2) All planting beds shall be cultivated to a depth of 8 inches, or chemically treated for weed control. Remove objectionable objects that will interfere with maintenance of site.

### G. Planting

1) Plants shall be located as shown on plans and/or drawings and, where necessary, located on the site by stakes, flags or other means.

2) Prior to planting, remove galvanized wire basket securing root ball, untie and roll down burlap covering from around the stem.

3) The plants shall be set upright in holes as illustrated in Figure G.1 in Appendix G.

4) All plants shall be thoroughly watered on the same day of planting. Plants that have settled shall be reset to grade.

H. Wrapping

Immediately after planting, wrap deciduous tree trunks from the bottom to the first limb with a 4 inch wide bituminous impregnated, insect resistant tape or paper manufactured for that purpose. Tie with jute (bag strings) at top and bottom. The wrap should be removed per nursery recommendations.

I. Mulching

Mulch the disturbed area around individual trees and shrubs with a 2-3" layer of wood chips. Pull wood chips 1 inch away from the base of shrubs to avoid fungus development.

J. Pruning

After planting, prune to remove injured twigs and branches. The natural shape of the plant should not be changed.

K. Cleanup and Maintenance

1) After all work is complete, all excess soil, peat moss, debris, etc., shall be removed from the site.

2) Water plants two weeks after planting. For two years, water plants every two weeks during dry periods, which exceed three weeks without a good soaking rain, or water as needed in accordance with local conditions. Shrubs may require 5 to 10 gallons and trees, 20 to 30 gallons for each watering.

3) Remove trunk wrap per nursery recommendation.

2. Transplanting "Wild" Stock

Successful transplanting of wild stock will require heavy equipment and considerable labor as a large weight of soil must be moved with the roots.

- A. Select trees and shrubs with good form and full crowns.
- B. Transplant only when plants are dormant and soil is moist. Wrap soil ball with burlap to prevent soil from separating from roots.
- C. Table 4.8 shows minimum diameter and

approximate weight of soil ball that must be moved with each size plant.

- D. Plant and maintain as described above for nursery stock.

**PRUNING AND THINNING**

| Use                                                                      | Cleared Width Each Side of Trail Tread (ft.) | Cleared Height (ft.) |
|--------------------------------------------------------------------------|----------------------------------------------|----------------------|
| <b>TRAILS</b>                                                            |                                              |                      |
| Hiking                                                                   | 1                                            | 8                    |
| Bicycle                                                                  | 2                                            | 10                   |
| Motorbike                                                                | 2                                            | 10                   |
| Horse                                                                    | 2                                            | 12                   |
| X-Country Ski                                                            | Total: 3-12                                  | 12 <sup>1</sup>      |
| Snowmobile                                                               | Total: 6-12                                  | 12 <sup>1</sup>      |
| <b>PICNIC &amp; CAMPING AREAS</b>                                        |                                              |                      |
| Campfire/Grill                                                           | 10 ft. diam.                                 | 15                   |
| <sup>1</sup> Includes allowance for snow depth and snow load on branches |                                              |                      |

1. Pruning

- A. Remove trees, limbs, and limb stubs to the above widths and heights specified for the intended use.
- B. Remove dead, diseased, or dying limbs that may fall.
- C. Do not remove more than one-third of the live crown of a tree in a year.
- D. Cut limbs flush to the branch bark ridge.
- E. Use the 3 or 4 cut pruning method on all branches over 2 inches in diameter: First cut about one-third the way through the underside of the limb (about 6-12 inches from the tree trunk). Then (approximately an inch further out) make a second cut through the limb from the upper side. When the branch is removed, there is no splintering of the main tree trunk. Remove the stub. If the branch is larger than 5-6 inches in diameter, use the four cut system. Cuts 1 and 2 remain the same and cut 3 should be from the underside of the limb, on the outside of the branch collar. Cut 4 should be from the top and in alignment with the 3rd cut. Cut 3 should be 1/4 to 1/3 the way through the limb. This will prevent the bark from peeling down the trunk. Do not paint the cut surface.

2. Thinning
  - A. Remove dead, diseased, dying, poorly anchored, or ice damaged trees that pose a hazard to recreationists or that interfere with intended use.
  - B. To maintain grass cover in a wooded area, thin according to formula  $D \times 3$  (average diameter of the trunk of overstory trees, in inches, times three—the answer is the spacing between trees to be left, in feet). For example, for trees with average diameter of 6 inches, spacing after thinning should leave trees 18 feet apart on average. Crown cover after thinning should be about 50 percent.
  - C. Selectively thin as needed to favor those trees that are most “resistant” to compaction around their roots. See Table G.2, “Susceptibility of Tree Species to Compaction” in Appendix G. If the soil on the site is naturally well drained, those species in the “intermediate” group may also be favored.

**Table 4.8**  
**Size and Weight of Earth Ball Required to Transplant Wild Stock**

| Caliper <sup>1</sup><br>(Inches) | Shade Trees<br>(Maple, Ash, Oak, Birch, etc.) |                             | Small Trees & Shrubs<br>(Crabapple, Thornapple, Viburnum, Dogwood, etc.) |                                         |                             |
|----------------------------------|-----------------------------------------------|-----------------------------|--------------------------------------------------------------------------|-----------------------------------------|-----------------------------|
|                                  | Minimum<br>Diameter<br>Ball<br>(Inches)       | Weight<br>of Ball<br>(lbs.) | Up to 6 ft.<br>Height —<br>6 ft. and<br>Caliper <sup>1</sup>             | Minimum<br>Diameter<br>Ball<br>(Inches) | Weight<br>of Ball<br>(lbs.) |
| 1/2                              | 14                                            | 88                          | 2                                                                        | 12                                      | 55                          |
| 3/4                              | 16                                            | 130                         | 3                                                                        | 14                                      | 88                          |
| 1                                | 18                                            | 186                         | 4                                                                        | 16                                      | 130                         |
| 1-1/4                            | 20                                            | 227                         | 5                                                                        | 18                                      | 186                         |
| 1-1/2                            | 22                                            | 302                         | 3/4                                                                      | 18                                      | 186                         |
| 1-3/4                            | 24                                            | 390                         | 1                                                                        | 20                                      | 227                         |
| 2                                | 28                                            | 621                         | 1-1/2                                                                    | 22                                      | 302                         |
| 3                                | 32                                            | 836                         | 1-3/4                                                                    | 24                                      | 390                         |
| 3-1/2                            | 38                                            | 1,400                       | 2                                                                        | 28                                      | 621                         |
| 4                                | 42                                            | 1,887                       | 2-1/2                                                                    | 32                                      | 836                         |
|                                  |                                               |                             | 3                                                                        | 38                                      | 1,400                       |

<sup>1</sup>Caliper is a diameter measurement of trees at a height of 6 inches above the ground.

# STANDARD AND SPECIFICATIONS FOR SILT FENCE



## Definition & Scope

A **temporary** barrier of geotextile fabric installed on the contours across a slope used to intercept sediment laden runoff from small drainage areas of disturbed soil by temporarily ponding the sediment laden runoff allowing settling to occur. The maximum period of use is limited by the ultraviolet stability of the fabric (approximately one year).

## Conditions Where Practice Applies

A silt fence may be used subject to the following conditions:

1. Maximum allowable slope length and fence length will not exceed the limits shown in the Design Criteria for the specific type of silt fence used ; and
2. Maximum ponding depth of 1.5 feet behind the fence; and
3. Erosion would occur in the form of sheet erosion; and
4. There is no concentration of water flowing to the barrier; and
5. Soil conditions allow for proper keying of fabric, or other anchorage, to prevent blowouts.

## Design Criteria

1. Design computations are not required for installations of 1 month or less. Longer installation periods should be designed for expected runoff.
2. All silt fences shall be placed as close to the disturbed area as possible, but at least 10 feet from the toe of a slope steeper than 3H:1V, to allow for maintenance and

roll down. The area beyond the fence must be undisturbed or stabilized.

3. The type of silt fence specified for each location on the plan shall not exceed the maximum slope length and maximum fence length requirements shown in the following table:

|        |              | Slope Length/Fence Length (ft.) |            |          |
|--------|--------------|---------------------------------|------------|----------|
| Slope  | Steepness    | Standard                        | Reinforced | Super    |
| <2%    | < 50:1       | 300/1500                        | N/A        | N/A      |
| 2-10%  | 50:1 to 10:1 | 125/1000                        | 250/2000   | 300/2500 |
| 10-20% | 10:1 to 5:1  | 100/750                         | 150/1000   | 200/1000 |
| 20-33% | 5:1 to 3:1   | 60/500                          | 80/750     | 100/1000 |
| 33-50% | 3:1 to 2:1   | 40/250                          | 70/350     | 100/500  |
| >50%   | > 2:1        | 20/125                          | 30/175     | 50/250   |

**Standard Silt Fence (SF)** is fabric rolls stapled to wooden stakes driven 16 inches in the ground.  
**Reinforced Silt Fence (RSF)** is fabric placed against welded wire fabric with anchored steel posts driven 16 inches in the ground.  
**Super Silt Fence (SSF)** is fabric placed against chain link fence as support backing with posts driven 3 feet in the ground.

4. Silt fence shall be removed as soon as the disturbed area has achieved final stabilization.

The silt fence shall be installed in accordance with the appropriate details. Where ends of filter cloth come together, they shall be overlapped, folded and stapled to prevent sediment bypass. Butt joints are not acceptable. A detail of the silt fence shall be shown on the plan. See Figure 5.30 on page 5.56 for Reinforced Silt Fence as an example of details to be provided.

## Criteria for Silt Fence Materials

1. Silt Fence Fabric: The fabric shall meet the following specifications unless otherwise approved by the appropriate erosion and sediment control plan approval authority. Such approval shall not constitute statewide acceptance.

| Fabric Properties                       | Minimum Acceptable Value | Test Method                 |
|-----------------------------------------|--------------------------|-----------------------------|
| Grab Tensile Strength (lbs)             | 110                      | ASTM D 4632                 |
| Elongation at Failure (%)               | 20                       | ASTM D 4632                 |
| Mullen Burst Strength (PSI)             | 300                      | ASTM D 3786                 |
| Puncture Strength (lbs)                 | 60                       | ASTM D 4833                 |
| Minimum Trapezoidal Tear Strength (lbs) | 50                       | ASTM D 4533                 |
| Flow Through Rate (gal/min/sf)          | 25                       | ASTM D 4491                 |
| Equivalent Opening Size                 | 40-80                    | US Std Sieve<br>ASTM D 4751 |
| Minimum UV Residual (%)                 | 70                       | ASTM D 4355                 |

### Super Silt Fence

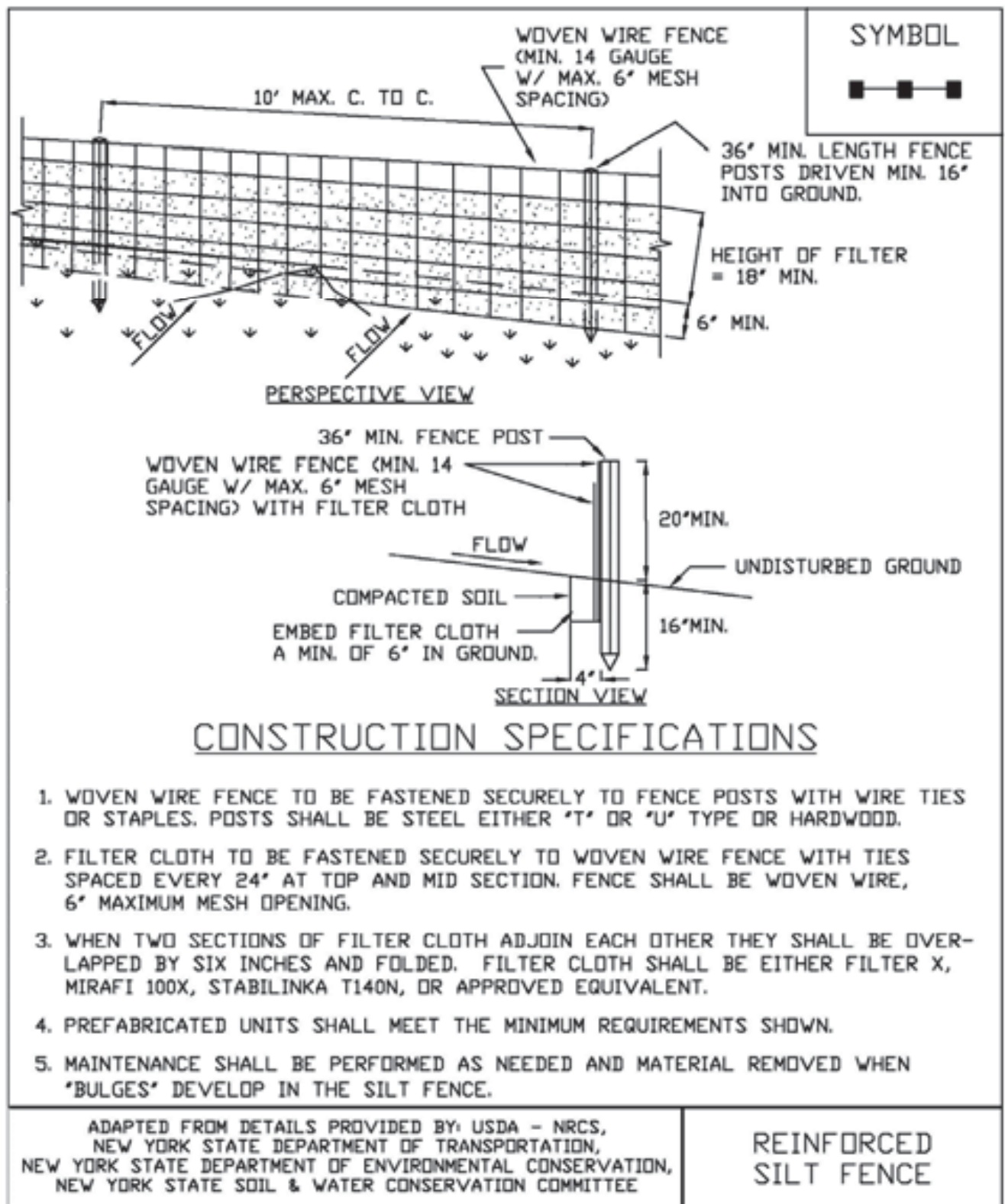


2. Fence Posts (for fabricated units): The length shall be a minimum of 36 inches long. Wood posts will be of sound quality hardwood with a minimum cross sectional area of 3.5 square inches. Steel posts will be standard T and U section weighing not less than 1.00 pound per linear foot. Posts for super silt fence shall be standard chain link fence posts.
3. Wire Fence for reinforced silt fence: Wire fencing shall be a minimum 14 gage with a maximum 6 in. mesh opening, or as approved.
4. Prefabricated silt fence is acceptable as long as all material specifications are met.

### Reinforced Silt Fence



**Figure 5.30  
Reinforced Silt Fence**



# Appendix G

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Department of  
Environmental  
Conservation

NYS Department of Environmental Conservation  
Division of Water  
625 Broadway, 4th Floor  
Albany, New York 12233-3505

**MS4 Stormwater Pollution Prevention Plan (SWPPP) Acceptance  
Form**

for

**Construction Activities Seeking Authorization Under SPDES General Permit**

\*(NOTE: Attach Completed Form to Notice Of Intent and Submit to Address Above)

**I. Project Owner/Operator Information**

1. Owner/Operator Name: Homeland Towers, LLC  
2. Contact Person: Klaus Wimmer  
3. Street Address: 9 Harmony St, 2nd Floor  
4. City/State/Zip: Danbury, CT 06801

**II. Project Site Information**

5. Project/Site Name: Glencoma Lake Cell Tower Compound  
6. Street Address: Walton Drive  
7. City/State/Zip: Mahopac, New York, 10541

**III. Stormwater Pollution Prevention Plan (SWPPP) Review and Acceptance Information**

8. SWPPP Reviewed by: Roberty J Foley P.E.  
9. Title/Position: Licensed Professional Engineer  
10. Date Final SWPPP Reviewed and Accepted: 10/12/2020

**IV. Regulated MS4 Information**

11. Name of MS4: Town of Carmel  
12. MS4 SPDES Permit Identification Number: NYR20A HP3-EXSV-KSNZ3  
13. Contact Person: Richard J. Franzetti, P.E. Town Engineer  
14. Street Address: 60 McAlpin Ave  
15. City/State/Zip: Carmel, NY 10541  
16. Telephone Number: 845-628-1500



## MS4 SWPPP Acceptance Form - continued

### V. Certification Statement - MS4 Official (principal executive officer or ranking elected official) or Duly Authorized Representative

I hereby certify that the final Stormwater Pollution Prevention Plan (SWPPP) for the construction project identified in question 5 has been reviewed and meets the substantive requirements in the SPDES General Permit For Stormwater Discharges from Municipal Separate Storm Sewer Systems (MS4s).  
Note: The MS4, through the acceptance of the SWPPP, assumes no responsibility for the accuracy and adequacy of the design included in the SWPPP. In addition, review and acceptance of the SWPPP by the MS4 does not relieve the owner/operator or their SWPPP preparer of responsibility or liability for errors or omissions in the plan.

Printed Name: RICHARD FRANZETTA

Title/Position: TOWN ENGINEER

Signature: 

Date: 12-1-2020

### VI. Additional Information

## Alexis Green

---

**From:** towernotifyinfo@fcc.gov  
**Sent:** Tuesday, April 21, 2020 2:21 PM  
**To:** Alexis Green  
**Subject:** Section 106 Notification of SHPO/THPO Concurrence- Email ID #4527426

**Categories:** Upload to RPM/E106, Production or ASAP

This is to notify you that the Lead SHPO/THPO has concurred with the following filing:

Date of Action: 04/21/2020

Direct Effect: No Historic Properties in Area of Potential Effects (APE)

Visual Effect: No Historic Properties in Area of Potential Effects (APE)

Comment Text: The NYSHPO concurs with the recommended effect finding based on the information provided.

Reviewed by J.A. Bonafide, NYSHPO

File Number: 0009036498

TCNS Number: 194673

Purpose: New Tower Submission Packet

Notification Date: 7AM EST 04/08/2020

Applicant: Homeland Towers, LLC

Consultant: EnviroBusiness Inc. d/b/a EBI Consulting (EBI 6119004380)

Positive Train Control Filing Subject to Expedited Treatment Under Program Comment: No

Site Name: Glencoma Lake / NY054

Site Address: Walton Drive

Detailed Description of Project: 6119004380 Proposed construction of a new telecommunications monopole and compound resulting in ground disturbance Please see Attachment 4 of this filing for project design details

Site Coordinates: 41-20-56.9 N, 73-43-49.9 W

City: Mahopac

County: PUTNAM

State:NY

Lead SHPO/THPO: New York State Historic Preservation Office

### NOTICE OF FRAUDULENT USE OF SYSTEM, ABUSE OF PASSWORD AND RELATED MISUSE

Use of the Section 106 system is intended to facilitate consultation under Section 106 of the National Historic Preservation Act and may contain information that is confidential, privileged or otherwise protected from disclosure under applicable laws. Any person having access to Section 106 information shall use it only for its intended purpose. Appropriate action will be taken with respect to any misuse of the system.



January 21, 2020

Honorable Chairman Paerprer and  
Members of the Planning Board  
Town of Carmel  
60 McAlpin Avenue  
Mahopac, NY 10541

RE: Area analysis of feasibility of alternate existing structure sites or collocation opportunities

Hon. Chairman Paerprer and Members of the Planning Board:

I am the Regional Manager for Homeland Towers, LLC. I was responsible for identifying a suitable location for a telecommunications facility that would remedy the significant gap in reliable wireless service throughout the southern portion of Carmel in the vicinity and along Union Valley Road and adjoining residential areas.

In consultation with Verizon Wireless based on its siting needs in the area, I began exploring the area in the vicinity of the proposed site for a facility location taking into account the Town's Zoning Code, collocation opportunities, land uses, potential environmental impacts, leasing and construction feasibility.

Town Code Section 156-62. I. establishes a priority ranking for the location of wireless telecommunications facilities and requires that: *"Applicants for wireless telecommunications facilities shall locate, site and erect said wireless telecommunications facilities, including towers and other tall structures, in accordance with the following priorities, one being the highest priority and six being the lowest priority"*.

*Priority 1. On existing tall structures or wireless telecommunications towers in nonresidential zoning districts*

I performed a review of the Town's zoning map and a series of field visits to determine if there were any "existing tall structure or wireless telecommunications tower in a nonresidential zoning district" and found that the only existing tall structure is a 81' tall stealth tower, approximately 1.15 miles to the west located at 195 Route 6, Mahopac. This existing tower is too close (about 0.6 miles) from an existing Verizon Wireless roof top installation at 361 Route 6, and about 0.5 miles from an existing Verizon Wireless site at 80 Route 6, Somers, NY. Also, due to distance, topography and height this existing tower would not provide coverage for Verizon's service gap as shown in the attached "Alternative Candidate Analysis" Report by PierCon Solutions. There are no other existing tall structures in nonresidential zoning districts (see Exhibit A)

*Priority 2. Collocation on a site with existing wireless telecommunications towers or structures in nonresidential districts, not fronting on NYS Routes 6, 6N, 52 and 301*



## HOMELAND TOWERS

I performed a detailed review of the Town's zoning map and series of field visits to determine if there were any existing wireless communication towers or tall structures in non-residential zoning districts not fronting on NYS Routes 6, 6N, 52 and 301 that would be suitable for collocation. Based on my review there is no structure that meets this criteria within a 2 mile radius of the proposed site. (see Exhibit B)

*Priority 3. Collocation on a site with existing wireless telecommunications towers or structures in any other nonresidential districts*

I performed a detailed review of the Town's zoning map and series of in-depth field surveys to determine if there were any existing wireless communication towers or tall structures in any other non-residential zoning districts that would be suitable for collocation. Based on my review there is no structure that meets these criteria within a 2-mile radius of the proposed site. (see Exhibit C)

*Priority 4: Installation of a new wireless telecommunications facility in any nonresidential district*

I reviewed the Town's zoning map to determine the location of a "non-residential zoning district" suitable for the installation of a new wireless communications facility that would provide coverage for Verizon's service gap. The closest nonresidential zoned property is located at 24 Miller St, Parcel ID 86.11-1-14 approximately 0.6 miles west from the proposed site that is zoned "Commerce/Business Park". An analysis of this location determined that it was about 0.6 miles from existing Verizon Wireless sites at 361 Route 6 Mahopac and an existing site at 80 Route 6, Somers and due to this proximity not suitable for the installation of a new wireless communications facility. In addition, the eastern part of this property slopes severely downhill to an elevation of about 580 ft above sea level, which is approximately 160 ft lower in elevation than the proposed location. (see Exhibit D and the "Alternative Candidate Analysis" Report by PierCon Solutions)

*Priority 5. Installation of a new wireless telecommunications facility in any residential district*

Having explored all the required higher priority locations, I finally evaluated potential locations in a "residential" zoning district and utilized the Putnam County GIS online mapping service and the Towns zoning map to identify what if any residential zoned properties might be suitable. In particular I selected properties based on zoning code regulations, the location of existing on-air sites, size and acreage, distance from residences, environmental impact considerations, constructability and elevation. I identified the following residential zoned properties; the location of the identified properties is shown on the tax map attached as Exhibit E:

- A. 200 Union Valley Rd, Mahopac, Tax parcel # 76.17-1-28. This 34 acre vacant property is owned by Parent Estate, PO Box 396, Mahopac, NY 10541. A certified letter was sent on October 2, 2017. The certified letter was returned unclaimed. I follow up letter with regular mail was sent on November 2, 2017. Copies of the letters are attached in Exhibit F. I never received a response to my letter.
- B. 55 Fenwood Rd, Mahopac, Tax parcel # 76.18-2-56 This 9.3 acre property is owned by David & Dielle Simajlaj, same address. A certified letter was sent on October 2, 2017. A copy of the letter is attached in Exhibit F. I never received a response to my letter.



## HOMELAND TOWERS

- C. 74 Teakettel Spout Rd, Mahopac, Tax parcel # 76.17-2-2. This 15.2 acre property is owned by Jeffrey & Debra Kessler, same address. A certified letter was sent on October 2, 2017. A copy of the letter is attached in Exhibit F. Mr. Kessler responded by phone to my letter and expressed an initial interest. I followed up with him by phone and he stated that he would discuss it with his family. I followed up with him a couple times, but he never responded to my calls.
- D. 45 Margaret Rd, Mahopac, Tax parcel# 87.7-1-24. This 43 acre property is owned by Kenneth Sullivan & Sean Kelly 1524 Broad St, North Bellmore, NY 11710. A certified letter was sent on October 2 and October 23, 2017. A copy of the letter is attached in Exhibit F. Mr. Sullivan responded to the letter and expressed initial interest, however he did not respond to my subsequent follow up calls.
- E. 545 Union Valley Rd, Mahopac, NY 10541, Tax Parcel ID# 87.7-1-7. This 74 acre parcel is owned by Willow Wood Rifle and Pistol Club at 551 Union Valley Rd, Mahopac, NY 10541. A certified letter was sent on October 2, 2017. A copy of the letter is attached in Exhibit F. I visited the club as a follow up to the letter and discussed this proposal with the Club President Mr. Calcagnini. The Club was interested in our proposal but it was subsequently determined that the location was too far east and would not provide coverage for the service gap.
- F. 78 Englewood Terrace, Mahopac, Tax# 76.19-1-55. This 25 acre parcel is owned by Vincent Perrone, 7 Vails Ln, Katonah NY 10536. A certified letter was sent on October 2, 2017. A copy of the letter is attached in Exhibit F. I never received a response to my letter.
- G. Maple Hill Dr, Mahopac, Parcel ID # 87.5-1-90. This 70 acre property is owned by and are the common lands of the Maple Hill Estates Home Owners Association, Inc, and is subject to this application.

Based on the above limitations, the local topography, existing site locations and coverage objective, the number of available properties was extremely limited. The only property that was interested in leasing space and that also provides coverage for the service gap, is the subject site. Since this site is approved by Verizon Wireless, Homeland Towers, LLC entered into an agreement with the property owner and is seeking a Special Permit for the site.

In conclusion, there are no existing structures or collocation opportunities at higher priority ranked locations as an alternative for the proposed facility. Based on its location and the surrounding area, including the Zoning Code requirements, the proposed site is the least intrusive alternative to remedy Verizon Wireless' significant gap in service.

Respectfully,

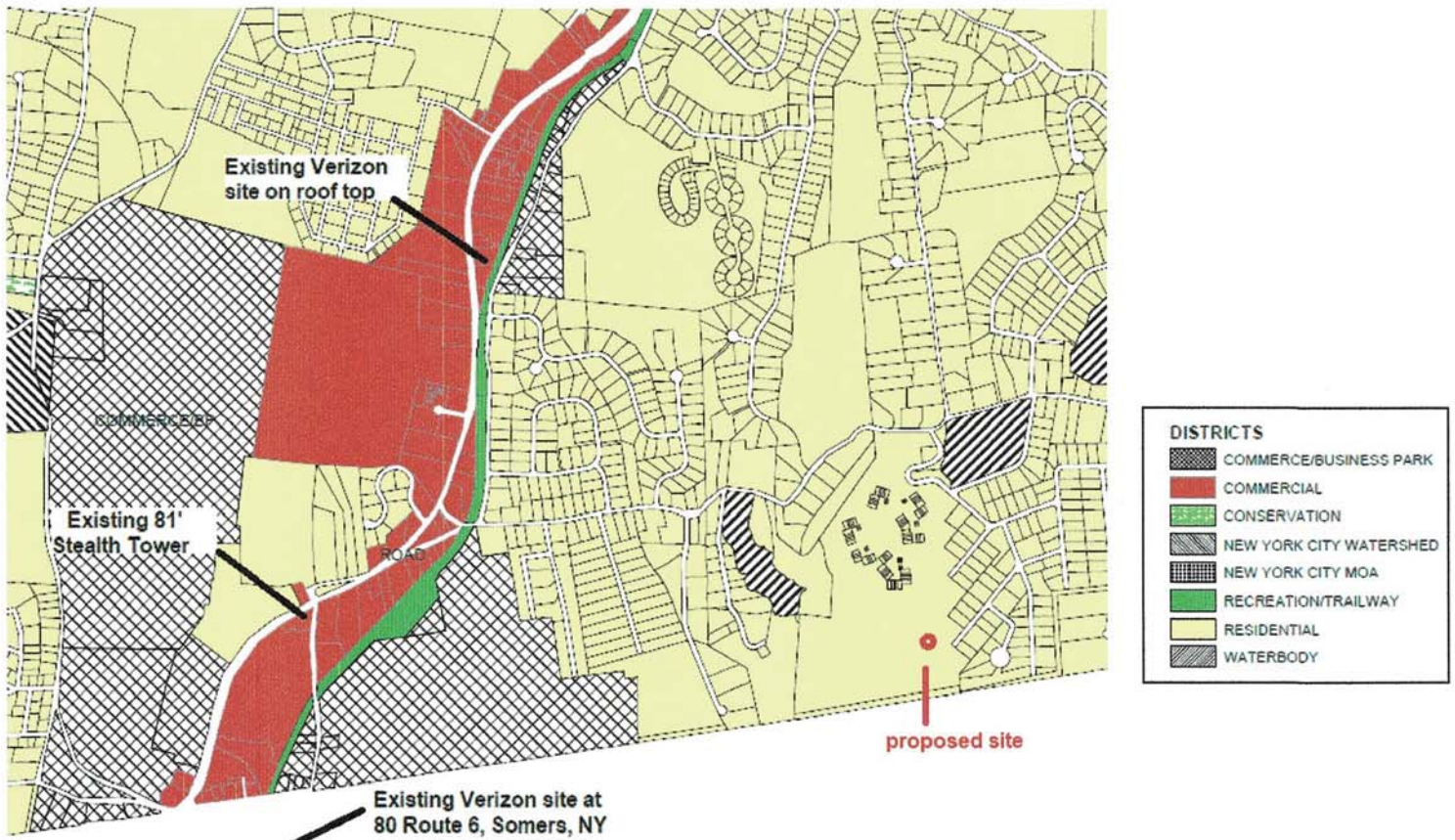
Klaus Wimmer  
Regional Manager  
Homeland Towers, LLC.



HOMELAND TOWERS

## EXHIBIT A

Priority 1. On existing tall structures or wireless telecommunications towers in nonresidential zoning districts



Existing 81' stealth tower structure in Commercial Zone, approximately 1.15 miles west of the proposed site at 195 Route 6, Mahopac. Verizon Wireless is also located on a roof top at 361 Route 6 Mahopac, and at 80 Route 6, Somers, NY. There are no other existing tall structures in nonresidential zoning districts.

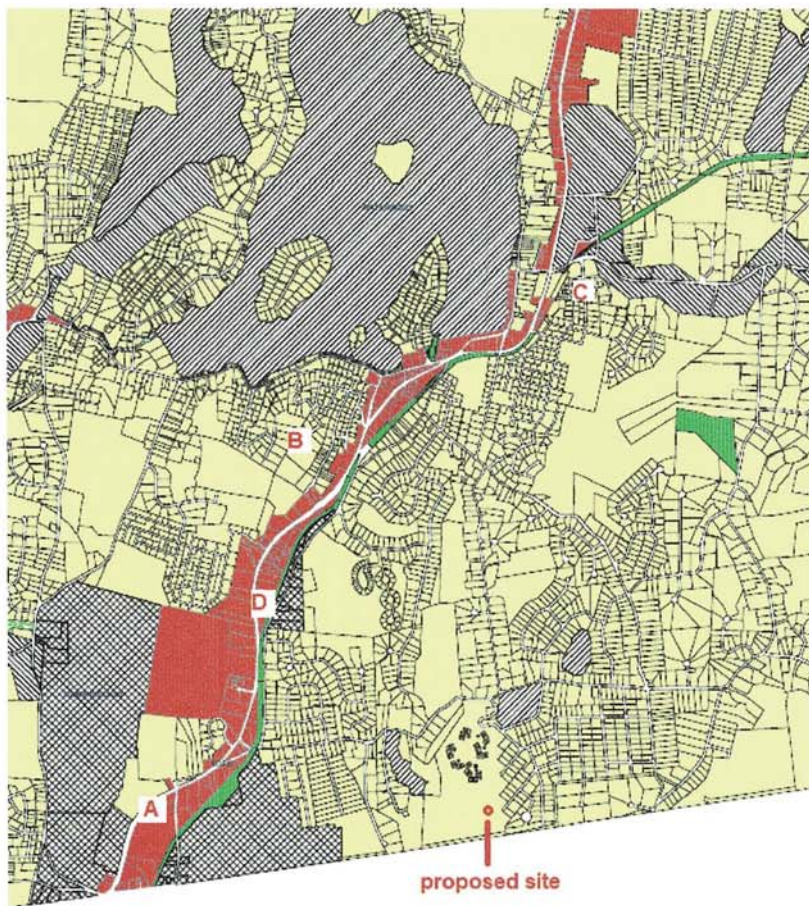


HOMELAND TOWERS

## EXHIBIT B

Priority 2: Colocation on existing wireless telecommunications towers or structures in nonresidential districts, not fronting on NYS Routes 6, 6N, 52 and 301

This zoning map shows the locations of all existing wireless telecommunications towers or structures in both nonresidential and residential districts



A: existing 81 ft Tower in commercial zone at 195 Route 6

B: existing 195 ft Tower in residential zone 51 Crest Drive

C: existing 120 ft Tower in residential zone at 55 McAlpin Ave.

D: existing Verizon roof top installation (+/- 30 ft ) at 361 Route 6.

### DISTRICTS

|  |                         |
|--|-------------------------|
|  | COMMERCE/BUSINESS PARK  |
|  | COMMERCIAL              |
|  | CONSERVATION            |
|  | NEW YORK CITY WATERSHED |
|  | NEW YORK CITY MOA       |
|  | RECREATION/TRAILWAY     |
|  | RESIDENTIAL             |
|  | WATERBODY               |

Based on my review there are no existing wireless telecommunications towers or structures in nonresidential districts not fronting on NYS Routes 6, 6N, 52 and 301 within a 1-2 mile radius of the proposed site.

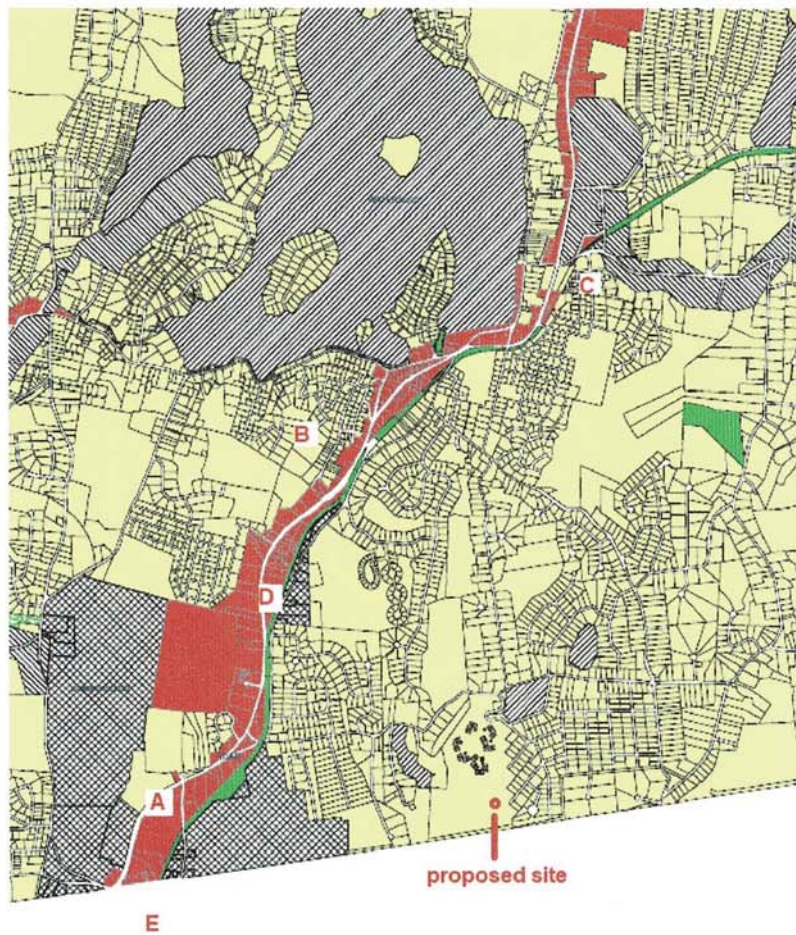


HOMELAND TOWERS

## EXHIBIT C

Priority 3. Collocation on a site with existing wireless telecommunications towers or structures in any other nonresidential districts

This zoning map shows the locations of all existing wireless telecommunications towers or structures on both nonresidential and residential districts



A: existing 81 ft Tower in commercial zone at 195 Route 6

B: existing 195 ft Tower in residential zone 51 Crest Drive

C: existing 120 ft Tower in residential zone at 55 McAlpin Ave.

D: existing Verizon roof top installation (+/- 30 ft ) at 361 Route 6.

E. existing Verizon site at 80 Route 6, Somers, NY.

### DISTRICTS

|  |                         |
|--|-------------------------|
|  | COMMERCE/BUSINESS PARK  |
|  | COMMERCIAL              |
|  | CONSERVATION            |
|  | NEW YORK CITY WATERSHED |
|  | NEW YORK CITY MOA       |
|  | RECREATION/TRAILWAY     |
|  | RESIDENTIAL             |
|  | WATERBODY               |

Based on my review there are no existing wireless telecommunications towers or structures in any other nonresidential district.

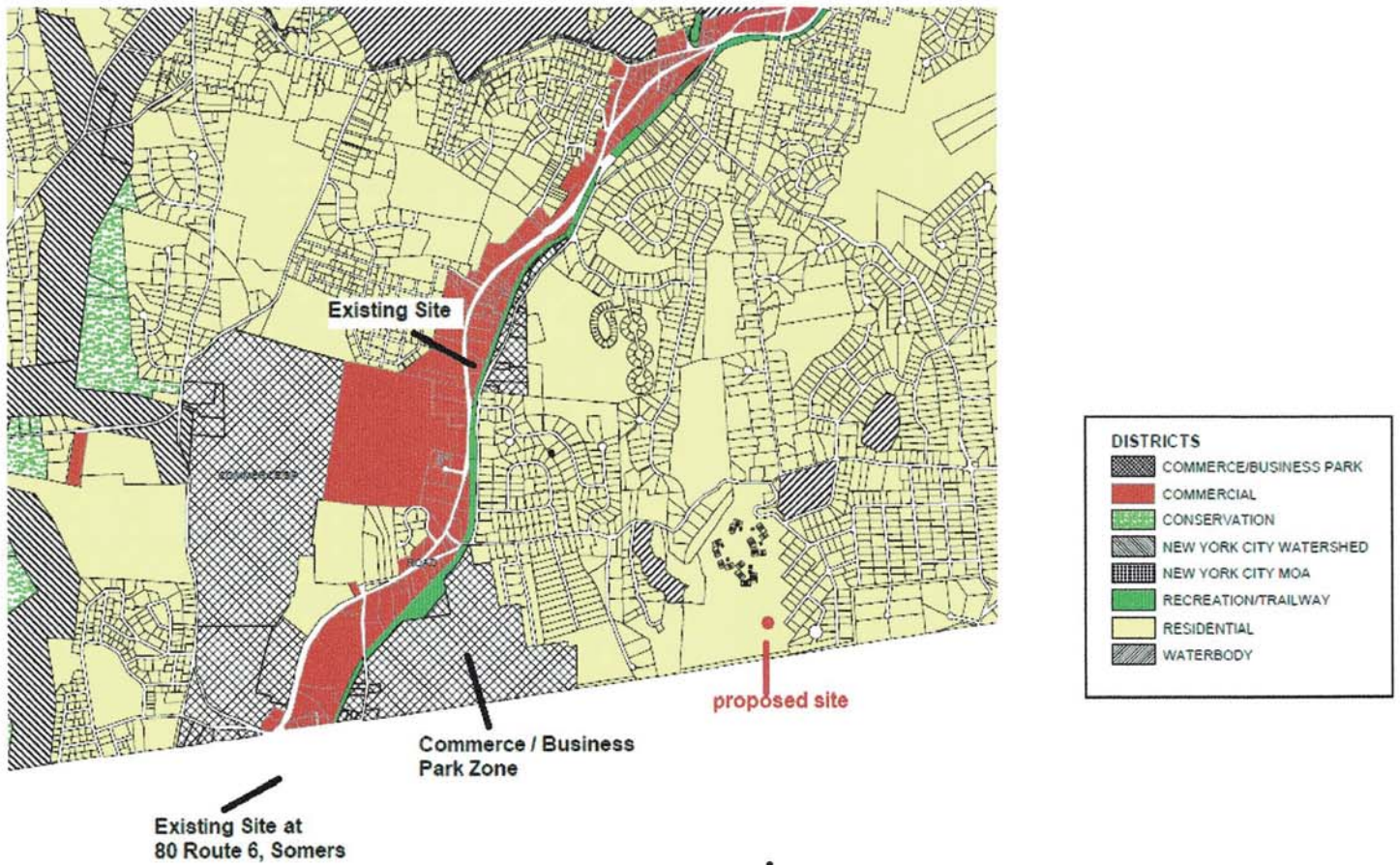




HOMELAND TOWERS

## EXHIBIT D

Priority 4: Installation of a new wireless telecommunications facility in any nonresidential district



The closest nonresidential zoned property to the proposed site is located at 24 Miller St, Parcel ID 86.11-1-14 approximately 0.6 miles west from the proposed site. That property is zoned "Commerce/Business Park". An analysis of this location determined that it was about 0.6 miles from existing Verizon Wireless sites at 361 Route 6 Mahopac and an existing site at 80 Route 6, Somers and due to this proximity not suitable for the installation of a new wireless communications facility.



HOMELAND TOWERS

## EXHIBIT E

Inventory of residential properties evaluated



- A. 200 Union Valley Rd, Mahopac, Tax parcel # 76.17-1-28
- B. 55 Fenwood Rd, Mahopac, Tax parcel # 76.18-2-56
- C. 74 Teakettel Spout Rd, Mahopac, Tax parcel # 76.17-2-2
- D. 45 Margaret Rd, Mahopac, Tax parcel# 87.7-1-24
- E. 545 Union Valley Rd, Mahopac, NY 10541, Tax Parcel ID# 87.7-1-7
- F. 78 Englewood Terrace, Mahopac, Tax# 76.19-1-55
- G. Maple Hill Dr, Mahopac, Parcel ID # 87.5-1-90



HOMELAND TOWERS

## EXHIBIT F

Copies of certified proposal letters sent out



HOMELAND TOWERS

October 2, 2017

Via Certified Mail

Parent Estate  
P.O. Box 396  
Mahopac NY 10541

Re: Homeland Towers Wireless Facility Proposal (Parcel ID# 76.17-1-28) NY054 Glencoma Lake

Dear Sir/Madam,

This proposal letter is being sent to your attention in hopes that you will be interested in leasing a small portion of your property located at 200 Union Valley Road for the purpose of a wireless facility. Homeland Towers has identified this property as a potential wireless siting solution that will create an additional revenue stream for you. In addition to enhanced cellular coverage in the area and along Union Valley Road, the proposed facility will provide critical infrastructure for public safety in this area of Mahopac.

The principals of Homeland Towers have a combined 40 years of experience providing wireless solutions utilized by AT&T, Verizon, Sprint and T-Mobile throughout the Northeast. Homeland Towers maintains a proven track record of partnering with Municipalities, Private Landlords, and Organizations to maximize the value of their property. Our expertise in real estate, zoning administration, construction and site management provides a fluid process that will benefit you.

All project costs associated with our proposal, including municipal and state approvals along with construction costs are at the sole expense of Homeland Towers. Once construction is complete, we take full responsibility for managing the site and coordinating its use by telecommunications providers.

Please contact me at your earliest convenience to discuss the above proposal. I look forward to speaking with you.

Sincerely,

Klaus Wimmer  
203-297-6345  
cell# 201-289-6750  
kw@homelandtowers.us



HOMELAND TOWERS

November 2, 2017

Via USPS Mail

Parent Estate  
P.O. Box 396  
Mahopac NY 10541

Re: Homeland Towers Wireless Facility Proposal (Parcel ID# 76.17-1-28) NY054 Glencoma Lake

Dear Sir/Madam,

This proposal letter is being sent to your attention in hopes that you will be interested in leasing a small portion of your property located at 200 Union Valley Road for the purpose of a wireless facility. Homeland Towers has identified this property as a potential wireless siting solution that will create an additional revenue stream for you. In addition to enhanced cellular coverage in the area and along Union Valley Road, the proposed facility will provide critical infrastructure for public safety in this area of Mahopac.

The principals of Homeland Towers have a combined 40 years of experience providing wireless solutions utilized by AT&T, Verizon, Sprint and T-Mobile throughout the Northeast. Homeland Towers maintains a proven track record of partnering with Municipalities, Private Landlords, and Organizations to maximize the value of their property. Our expertise in real estate, zoning administration, construction and site management provides a fluid process that will benefit you.

All project costs associated with our proposal, including municipal and state approvals along with construction costs are at the sole expense of Homeland Towers. Once construction is complete, we take full responsibility for managing the site and coordinating its use by telecommunications providers.

Please contact me at your earliest convenience to discuss the above proposal. I look forward to speaking with you.

Sincerely,

Klaus Wimmer  
203-297-6345  
cell# 201-289-6750  
kw@homelandtowers.us



October 2, 2017

Via Certified Mail

David & Dielle Simajlaj  
55 Fenwood Rd,  
Mahopac, NY 10541

Re: Homeland Towers Wireless Facility Proposal (Parcel ID# 76.18-2-56) NY054 Glencoma Lake

Dear Mr. & Mrs. Simajlaj,

This proposal letter is being sent to your attention in hopes that you will be interested in leasing a small portion of your property located at 55 Fenwood Road for the purpose of a wireless facility. Homeland Towers has identified this property as a potential wireless siting solution that will create an additional revenue stream for you. In addition to enhanced cellular coverage in the area and along Fenwood Road, the proposed facility will provide critical infrastructure for public safety in this area of Mahopac.

The principals of Homeland Towers have a combined 40 years of experience providing wireless solutions utilized by AT&T, Verizon, Sprint and T-Mobile throughout the Northeast. Homeland Towers maintains a proven track record of partnering with Municipalities, Private Landlords, and Organizations to maximize the value of their property. Our expertise in real estate, zoning administration, construction and site management provides a fluid process that will benefit you.

All project costs associated with our proposal, including municipal and state approvals along with construction costs are at the sole expense of Homeland Towers. Once construction is complete, we take full responsibility for managing the site and coordinating its use by telecommunications providers.

Please contact me at your earliest convenience to discuss the above proposal. I look forward to speaking with you.

Sincerely,

Klaus Wimmer  
203-297-6345  
cell# 201-289-6750  
kw@homelandtowers.us



October 2, 2017

Via Certified Mail

Jeffrey & Debra Kessler  
74 Teakettel Spout Road  
Mahopac, NY 10541

Re: Homeland Towers Wireless Facility Proposal (Parcel ID# 76.17-2-2) NY054 Glencoma Lake

Dear Mr. & Mrs. Kessler,

This proposal letter is being sent to your attention in hopes that you will be interested in leasing a small portion of your property located at 74 Teakettel Spout Road for the purpose of a wireless facility. Homeland Towers has identified this property as a potential wireless siting solution that will create an additional revenue stream for you. In addition to enhanced cellular coverage in the area and along Teakettel Spout Road, the proposed facility will provide critical infrastructure for public safety in this area of Mahopac.

The principals of Homeland Towers have a combined 40 years of experience providing wireless solutions utilized by AT&T, Verizon, Sprint and T-Mobile throughout the Northeast. Homeland Towers maintains a proven track record of partnering with Municipalities, Private Landlords, and Organizations to maximize the value of their property. Our expertise in real estate, zoning administration, construction and site management provides a fluid process that will benefit you.

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Please contact me at your earliest convenience to discuss the above proposal. I look forward to speaking with you.

Sincerely,

Klaus Wimmer  
203-297-6345  
cell# 201-289-6750  
kw@homelandtowers.us



October 2, 2017

Via Certified Mail

Kenneth Sullivan  
Sean Kelly  
45 Maraget Road  
Mahopac, NY 10541

Re: Homeland Towers Wireless Facility Proposal (Parcel ID# 87.7-1-24) NY054 Glencom a Lake

Dear Mr. Sullivan & Mr. Kelly,

This proposal letter is being sent to your attention in hopes that you will be interested in leasing a small portion of your property located at 45 Margaret Road for the purpose of a wireless facility. Homeland Towers has identified this property as a potential wireless siting solution that will create an additional revenue stream for you. In addition to enhanced cellular coverage in the area and along Margaret Road, the proposed facility will provide critical infrastructure for public safety in this area of Mahopac.

The principals of Homeland Towers have a combined 40 years of experience providing wireless solutions utilized by AT&T, Verizon, Sprint and T-Mobile throughout the Northeast. Homeland Towers maintains a proven track record of partnering with Municipalities, Private Landlords, and Organizations to maximize the value of their property. Our expertise in real estate, zoning administration, construction and site management provides a fluid process that will benefit you.

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Please contact me at your earliest convenience to discuss the above proposal. I look forward to speaking with you.

Sincerely,

Klaus Wimmer  
203-297-6345  
cell# 201-289-6750  
kw@homelandtowers.us





HOMELAND TOWERS

October 23, 2017

Via Certified Mail

Kenneth Sullivan & Sean Kelly  
1524 Broad St  
North Bellmore NY 11710

Re: Homeland Towers Wireless Facility Proposal (Parcel ID# 87.7-1-24) NY054 Glencom a Lake

Dear Mr. Sullivan & Mr. Kelly,

This proposal letter is being sent to your attention in hopes that you will be interested in leasing a small portion of your property located at 45 Margaret Road for the purpose of a wireless facility. Homeland Towers has identified this property as a potential wireless siting solution that will create an additional revenue stream for you. In addition to enhanced cellular coverage in the area and along Margaret Road, the proposed facility will provide critical infrastructure for public safety in this area of Mahopac.

The principals of Homeland Towers have a combined 40 years of experience providing wireless solutions utilized by AT&T, Verizon, Sprint and T-Mobile throughout the Northeast. Homeland Towers maintains a proven track record of partnering with Municipalities, Private Landlords, and Organizations to maximize the value of their property. Our expertise in real estate, zoning administration, construction and site management provides a fluid process that will benefit you.

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Please contact me at your earliest convenience to discuss the above proposal. I look forward to speaking with you.

Sincerely,

Klaus Wimmer  
203-297-6345  
cell# 201-289-6750  
kw@homelandtowers.us



HOMELAND TOWERS

October 2, 2017

Via Certified Mail

Willow Wood Club Rifle & Pistol Club  
Attn: President  
551 Union Valley Road  
Mahopac, NY 10541

Re: Homeland Towers Wireless Facility Proposal (Parcel ID# 87.7-1-7) NY054 Glencoma Lake

Dear President,

This proposal letter is being sent to your attention in hopes that you will be interested in leasing a small portion of your property located at 545 Union Valley Road for the purpose of a wireless facility. Homeland Towers has identified this property as a potential wireless siting solution that will create an additional revenue stream for your organization. In addition to enhanced cellular coverage in the area and along Union Valley Road, the proposed facility will provide critical infrastructure for public safety in this area of Mahopac.

The principals of Homeland Towers have a combined 40 years of experience providing wireless solutions utilized by AT&T, Verizon, Sprint and T-Mobile throughout the Northeast. Homeland Towers maintains a proven track record of partnering with Municipalities, Private Landlords, and Organizations to maximize the value of their property. Our expertise in real estate, zoning administration, construction and site management provides a fluid process that will benefit your organization.

All project costs associated with our proposal, including municipal and state approvals along with construction costs are at the sole expense of Homeland Towers. Once construction is complete, we take full responsibility for managing the site and coordinating its use by telecommunications providers.

Please contact me at your earliest convenience to discuss the above proposal. I look forward to speaking with you.

Sincerely,



Klaus Wimmer  
203-297-6345  
cell# 201-289-6750  
kw@homelandtowers.us



October 2, 2017

Via Certified Mail  
Vincent Perrone  
7 Vails Ln  
Katonah NY 10536

Re: Homeland Towers Wireless Facility Proposal (Parcel ID# 76.19-1-55) NY054 Glencom a Lake

Dear Mr. Perrone,

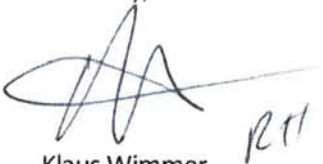
This proposal letter is being sent to your attention in hopes that you will be interested in leasing a small portion of your property located at 78 Englewood Terrace for the purpose of a wireless facility. Homeland Towers has identified this property as a potential wireless siting solution that will create an additional revenue stream for you. In addition to enhanced cellular coverage in the area and along Englewood Terrace, the proposed facility will provide critical infrastructure for public safety in this area of Mahopac.

The principals of Homeland Towers have a combined 40 years of experience providing wireless solutions utilized by AT&T, Verizon, Sprint and T-Mobile throughout the Northeast. Homeland Towers maintains a proven track record of partnering with Municipalities, Private Landlords, and Organizations to maximize the value of their property. Our expertise in real estate, zoning administration, construction and site management provides a fluid process that will benefit you.

All project costs associated with our proposal, including municipal and state approvals along with construction costs are at the sole expense of Homeland Towers. Once construction is complete, we take full responsibility for managing the site and coordinating its use by telecommunications providers.

Please contact me at your earliest convenience to discuss the above proposal. I look forward to speaking with you.

Sincerely,



Klaus Wimmer  
203-297-6345  
cell# 201-289-6750  
kw@homelandtowers.us



October 2, 2017

Via Certified Mail

Maple Hill Home Owners Association  
Attn: Jerry Crary  
Maple Hill Dr  
Mahopac, NY 10541

Re: Homeland Towers Wireless Facility Proposal Maple Hill Drive Maintenance Bldg. NY054 Glencoma Lake

Dear Mr. Crary,

This proposal letter is being sent to your attention in hopes that you will be interested in leasing a small portion of the property near the maintenance building on Maple Hill Drive for the purpose of a wireless facility. Homeland Towers has identified this property as potential wireless siting solution that will create an additional revenue stream for your organization. In addition to enhanced cellular coverage in the area and along Union Valley Road, the proposed facility will provide critical infrastructure for public safety in this area of Mahopac.

The principals of Homeland Towers have a combined 40 years of experience providing wireless solutions utilized by AT&T, Verizon, Sprint and T-Mobile throughout the Northeast. Homeland Towers maintains a proven track record of partnering with Municipalities, Private Landlords, and Organizations to maximize the value of their property. Our expertise in real estate, zoning administration, construction and site management provides a fluid process that will benefit your organization.

All project costs associated with our proposal, including municipal and state approvals along with construction costs are at the sole expense of Homeland Towers. Once construction is complete, we take full responsibility for managing the site and coordinating its use by telecommunications providers.

Please contact me at your earliest convenience to discuss the above proposal. I look forward to speaking with you.

Sincerely,

Klaus Wimmer  
203-297-6345  
cell# 201-289-6750  
kw@homelandtowers.us

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Jettrey & Debra Kessler  
 74 Teakettel Spout Rd.  
 Mahopac, NY 10541  
 NY054 10.2

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

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Maple Hill Home Owners Assoc.  
 Attn: Jerry Cray  
 Maple Hill Dr.  
 Mahopac, NY 10541  
 NY054 10.2

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

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Parent Estate  
 PO Box 3910 10.2  
 Mahopac, NY 10541 1054

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

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| City, State, ZIP+4®                                             |                  |

Kenneth Sullivan  
 Sean Kelly  
 45 Maraget Rd  
 Mahopac, NY 10541  
 NY054 10.2

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

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| Sent To<br>\$                                                   |                  |
| Street and Apt. No., P.O. Box, etc.                             |                  |
| City, State, ZIP+4®                                             |                  |

Willow Wood Club Rifle & Pistol Club  
 Attn: President  
 551 Union Valley Rd.  
 Mahopac, NY 10541  
 NY054 10.2

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

7015 3010 0001 7281 3018

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| Total Postage<br>\$                                             |                  |
| Sent To<br>\$                                                   |                  |
| Street and Apt. No., P.O. Box, etc.                             |                  |
| City, State, ZIP+4®                                             |                  |

David & Dielle Simajlaj  
 55 Fenwood Rd  
 Mahopac, NY 10541  
 NY054 10.2

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

7015 3010 0001 7281 3025

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Return Receipt (electronic) \$ \_\_\_\_\_

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Adult Signature Required \$ \_\_\_\_\_

Adult Signature Restricted Delivery \$ \_\_\_\_\_

Postage \$ \_\_\_\_\_

Total \$ \_\_\_\_\_

Sent \$ \_\_\_\_\_

Street \_\_\_\_\_

City \_\_\_\_\_

Vincent Perrone  
 7 Vails Ln.  
 Katonah NY 10536  
 NY054 10.2

Postmark Here

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

7015 3010 0001 7281 0499

**U.S. Postal Service™**  
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Certified Mail Fee \$ \_\_\_\_\_

Extra Services & Fees (check box, add fee as appropriate)

Return Receipt (hardcopy) \$ \_\_\_\_\_

Return Receipt (electronic) \$ \_\_\_\_\_

Certified Mail Restricted Delivery \$ \_\_\_\_\_

Adult Signature Required \$ \_\_\_\_\_

Adult Signature Restricted Delivery \$ \_\_\_\_\_

Postage \$ \_\_\_\_\_

Total \$ \_\_\_\_\_

Sent \$ \_\_\_\_\_

Street \_\_\_\_\_

City \_\_\_\_\_

Kenneth Sullivan & Sean Kelly  
 1524 Broad St.  
 North Bellmore, NY 11710  
 NY054 10.23

Postmark Here

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions



January 21, 2020

Honorable Chairman and Members of the Planning Board  
 Town of Carmel  
 60 McAlpin Avenue,  
 Mahopac, NY 10541

**Re: Site ID: NY054**  
**Location Name: Glenacom Lake**  
**Dewberry No.: 50114388**  
**Site Address: Walton Drive**  
**Mahopac, NY 10541**

To Whom It May Concern,

As part of the proposed telecommunication facility installation, Verizon Wireless is proposing a 50kW Kohler Co. diesel generator. Kohler Co. indicates that the noise level output is 65 dBA @ 23 feet.

The approximate projected noise levels at the property lines are as follows:

| <u>Property Line</u> | <u>Distance</u> | <u>Noise Level</u> |
|----------------------|-----------------|--------------------|
| North                | 2040'           | 26 dBA             |
| South                | 396'            | 40 dBA             |
| East                 | 108'            | 52 dBA             |
| West                 | 1104'           | 31 dBA             |

Approximate noise levels above are based on the Inverse Square Law. Due the heavy vegetation in the area the actual noise level at the property line is expected to be below 50 dBA at the property line.

Noise level regulations per Section 104-14(B) of the Town Code for the Residential Zone district in the town of Carmel, NY are as follows:

8:00 AM – 6:00 PM not to exceed 65 dBA @ the property line  
 6:00 PM – 8:00 AM not to exceed 50 dBA @ the property line

The generator is expected to only run in emergency situations and will be routinely cycled for approximately 30 minutes a week on a weekday between 8:00 AM and 6:00 PM. Based on the foregoing, the generator will comply with the town noise code.

If you have any questions, please do not hesitate to call me at 973.576.9639.

Sincerely,  
 Dewberry Engineers Inc.



David Revette, PE  
 NY Professional Engineer License No. 101758



January 21, 2020

Honorable Chairman and Members of the Planning Board  
 Town of Carmel  
 60 McAlpin Avenue,  
 Mahopac, NY 10541

**Re: Site ID: NY054**  
**Location Name: Glencoma Lake**  
**Dewberry No.: 50114388**  
**Site Address: Walton Drive**  
**Mahopac, NY 10541**

Dear Honorable Chairman and Members of the Planning Board:

The proposed tower in connection with the above captioned site is 140 feet and is located at a proposed ground elevation of 750 feet AMSL. Pursuant to the Carmel Zoning Code all towers are required to have a setback from residences on abutting properties of two times the height of the tower, or in this case 280 feet. At the proposed site the closest residence is approximately 169 feet from the tower. Thus a variance is required from the Zoning Board of Appeals. The proposed tower and facility meet all other setback requirements.

I reviewed the feasibility of relocating the tower to meet the foregoing residential setback requirement, and based on the reasons below I believe that the impact to the community and environment would be greater at a location that would meet the residential setback requirement.

As shown on the chart below and the attached drawing, location number 2 would meet the tower setback requirements. However, the existing ground elevation is 720' AMSL, being 20 feet lower, and thus the ground elevation have to be raised. In the alternative the height of the tower would have to be increased by 30 feet, thereby resulting again in a noncompliance related to the residential setback. Moreover, as detailed below, the amount of tree removal, grading, disturbance and other construction impacts would be significantly greater.

Next I analyzed a scenario where a 199 foot tower would be constructed. This height was used hypothetically based on it being a height below 200 feet, thereby not requiring FAA lighting and marking. In order to meet a 398 foot setback (2x 199 feet), the tower would have to be located at a location with a ground elevation of 684 feet AMSL, being 58 feet lower than the original location. Thus the ground elevation would have to be raised. More importantly detailed below, the amount of tree clearing, grading and disturbance would be enormous.

|                      | BASE ELEV.<br>(FT-AMSL) | TOWER<br>HEIGHT<br>(FT) | APPROX. SF OF<br>DISTURBANCE<br>(SF) | APPROX VOLUME<br>OF CUT/ FILL (CF) | APPROX.<br>NUMBER OF<br>TREES<br>REMOVED |
|----------------------|-------------------------|-------------------------|--------------------------------------|------------------------------------|------------------------------------------|
| TOWER LOCATION<br>#1 | 750*                    | 140                     | 19,660                               | 90,882 (FILL)                      | 36                                       |
| TOWER LOCATION<br>#2 | 750*                    | 140                     | 33,804                               | 169,020 (FILL)                     | 88                                       |
| TOWER LOCATION<br>#3 | 684                     | 199                     | 42,523                               | 212,615 (FILL)**                   | 160***                                   |

\* GRADE RAISED TO 750' AMSL

\*\* APPROXIMATE BASED ON GOOGLE EARTCH

\*\*\* APPROXIMATE BASED ON DENSE COVERAGE



Based on the foregoing, it is my professional opinion that the tower has been sited to create the least intrusive impact to the community and environmental while still providing the necessary height for Verizon Wireless' needs.

If you have any questions, please do not hesitate to call me at 973.739.9400.

Sincerely,  
Dewberry Engineers Inc.



Gregory Nawrotzki, PE  
NY Professional Engineer License No. 097512



HOMELAND TOWERS, LLC  
9 HARMONY STREET  
2nd FLOOR  
DANBURY, CT 06810  
(203) 297-6345

NEW YORK SMSA  
LIMITED PARTNERSHIP  
d/b/a



# GLENACOM LAKE

## WALTON DRIVE MAHOPAC, NY 10541 PUTNAM COUNTY



HOMELAND TOWERS, LLC  
9 HARMONY STREET  
2nd FLOOR  
DANBURY, CT 06810  
(203) 297-6345

NEW YORK SMSA  
LIMITED PARTNERSHIP  
d/b/a



4 CENTEROCK ROAD  
WEST NYACK, NY 10994

### GLENACOM LAKE

#### ZONING DRAWINGS

|   |          |                   |
|---|----------|-------------------|
| 5 | 12/02/22 | ISSUED FOR ZONING |
| 4 | 11/22/22 | ISSUED FOR ZONING |
| 3 | 11/04/22 | ISSUED FOR ZONING |
| 2 | 10/28/22 | ISSUED FOR ZONING |
| 1 | 05/07/20 | ISSUED FOR ZONING |
| 0 | 01/20/20 | ISSUED FOR ZONING |
| C | 01/02/20 | ISSUED FOR REVIEW |
| B | 11/07/19 | ISSUED FOR REVIEW |
| A | 08/27/19 | ISSUED FOR REVIEW |



Dewberry Engineers Inc.  
800 PARSIPPANY ROAD  
SUITE 301  
PARSIPPANY, NJ 07054  
PHONE: 973.739.9400  
FAX: 973.739.9710



DRAWN BY: JC/KFM

REVIEWED BY: MS

CHECKED BY: DER

PROJECT NUMBER: 50114387

JOB NUMBER: 5011438B

SITE ADDRESS:

WALTON DRIVE  
MAHOPAC, NY 10541  
PUTNAM COUNTY

SHEET TITLE

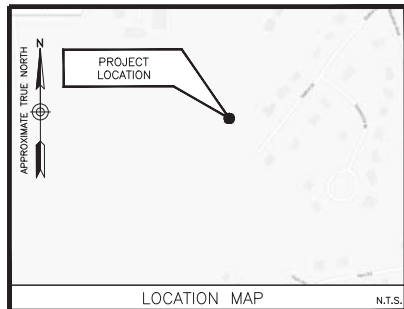
TITLE SHEET

SHEET NUMBER

T-1



VICINITY MAP N.T.S.



LOCATION MAP N.T.S.

DIRECTIONS FROM 4 CENTEROCK ROAD, WEST NYACK, NY:  
GET ON PALISADES INTERSTATE PKWY N FROM CENTEROCK RD AND NY-59 W.  
FOLLOW PALISADES INTERSTATE PKWY N AND US-6 E TO BEAR MOUNTAIN STATE  
PKWY TO IN PEEKSKILL. FOLLOW BEAR MOUNTAIN PKWY TO US-6 E IN  
CORTLANDT. TURN LEFT ONTO US-6 E. CONTINUE ON UNION VALLEY RD. TAKE  
KIR ORA BLVD TO WALTON DR.

**SITE COORDINATES:**  
LATITUDE: 41°-20'-56.88" N  
LONGITUDE: 73°-43'-49.94" W  
(BASED ON FAA 1-A)

**ELEVATION DATA**  
GROUND ELEVATION = 740.8± A.M.S.L.  
(BASED ON FAA 1-A)

**MONOPOLE ELEVATION (TO TOP OF MONOPOLE)**  
140'-0"± A.G.L. (880.8' A.M.S.L.) FAA 1-A

**SITE INFORMATION**

THE PROJECT CONSISTS OF RAWLAND SITE W/ GROUND EQUIPMENT WITHIN A 2550 SQUARE FOOT FENCED COMPOUND W/ A NEW 140' MONOPOLE.

THIS DOCUMENT WAS DEVELOPED TO REFLECT A SPECIFIC SITE AND ITS SITE CONDITIONS AND IS NOT TO BE USED FOR ANOTHER SITE OR WHEN OTHER CONDITIONS PERTAIN. REUSE OF THIS DOCUMENT IS AT THE SOLE RISK OF THE USER.

**PROJECT DESCRIPTION**

THIS DOCUMENT WAS DEVELOPED TO REFLECT A SPECIFIC SITE AND ITS SITE CONDITIONS AND IS NOT TO BE USED FOR ANOTHER SITE OR WHEN OTHER CONDITIONS PERTAIN. REUSE OF THIS DOCUMENT IS AT THE SOLE RISK OF THE USER.

**A.D.A. COMPLIANCE:**  
FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION.

**SITE NAME:**  
GLENACOM LAKE

**LOCATION:**  
WALTON DRIVE  
MAHOPAC, NY 10541  
PUTNAM COUNTY

**TAX MAP DESIGNATION:**  
MAP: 87.5, BLOCK: 1 LOT: 90

**ZONING DESIGNATION:**  
RESIDENTIAL

**PROPERTY OWNER/CO-APPLICANTS:**  
MAPLE HILL ESTATES HOME OWNERS ASSOCIATION, INC.  
WALTON DRIVE  
MAHOPAC, NY 10541

**APPLICANTS:**  
HOMELAND TOWERS, LLC  
9 HARMONY STREET, 2ND FLOOR  
DANBURY, CT 06810

VERIZON WIRELESS  
4 CENTEROCK ROAD  
WEST NYACK, NY 10994

**ATTORNEY:**  
SNYDER & SNYDER, LLP  
94 WHITE PLAINS ROAD  
HARRYTOWN, NY 10591

**ENGINEER:**  
DEWBERRY ENGINEERS INC.  
CONTACT: DAVID REVETTE, PE  
OFFICE: (973) 576-9639

**PROJECT MANAGER:**  
HOMELAND TOWERS, LLC  
CONTACT: KLAUS WIMMER  
OFFICE: (203) 297-6345  
CELL: (201) 288-6750

**POWER PROVIDER:**  
NYSEG  
(585) 484-2223

**TELCO PROVIDER:**  
VERIZON  
(914) 890-0200

**PROJECT INFORMATION**

| SHEET NUMBER | DESCRIPTION                                 |
|--------------|---------------------------------------------|
| T-1          | TITLE SHEET                                 |
| Z-1          | AERIAL MAP                                  |
| Z-2          | 1000' RADIUS MAP                            |
| Z-3          | PROPERTY OWNERS LIST-1                      |
| Z-4          | PROPERTY OWNERS LIST-2                      |
| Z-5          | PROPERTY OWNERS LIST-3                      |
| Z-6          | SITE PLAN                                   |
| Z-7          | EXISTING CONDITIONS PLAN                    |
| Z-8          | PARTIAL SITE PLAN                           |
| Z-9          | SOIL EROSION AND SEDIMENT CONTROL PLAN      |
| Z-10         | ELEVATIONS-1                                |
| Z-11         | ELEVATIONS-2                                |
| Z-12         | ACCESS DRIVEWAY PROFILE & DETAILS           |
| Z-13         | CONSTRUCTION DETAILS I                      |
| Z-14         | CONSTRUCTION DETAILS II                     |
| Z-15         | CONSTRUCTION DETAILS III                    |
| Z-16         | EROSION CONTROL NOTES AND DETAILS           |
| Z-17         | VERIZON WIRELESS EQUIPMENT PLAN & DETAILS   |
| Z-18         | VERIZON WIRELESS DETAILS I                  |
| Z-19         | VERIZON WIRELESS DETAILS II                 |
| Z-20         | VERIZON WIRELESS ANTENNA PLAN & DETAILS     |
| Z-21         | VERIZON WIRELESS EQUIPMENT LIGHTING DETAILS |
| Z-22         | ELECTRICAL RISER DIAGRAM                    |
| Z-23         | COMPOUND GROUNDING PLAN                     |
| Z-24         | GROUNDING DETAILS                           |

**SHEET INDEX**



DIG SAFELY NEW YORK, INC.  
NEW YORK CITY / LONG ISLAND AREA  
811 OR 1-800-272-4480

3 WORKING DAYS UTILITY NOTIFICATION  
PRIOR TO CONSTRUCTION



MAP 87.5 BLOCK 1 LOT 91  
NOW OR FORMERLY  
DAVID W. PARENT - EST.  
BOOK 1187 PAGE 136  
#205 UNION VALLEY ROAD

MAP 87.5 BLOCK 1 LOT 95  
NOW OR FORMERLY  
DAVID W. PARENT - EST.  
BOOK 1187 PAGE 136  
UNION VALLEY ROAD

MAP 86.6 BLOCK 2 LOT 45 NOW  
OR FORMERLY  
ELIZABETH SALVESEN &  
GERALD L. SALVESEN  
BOOK 1633 PAGE 192  
#159 UNION VALLEY ROAD

MAP 86.12 BLOCK 1 LOT 34  
NOW OR FORMERLY  
IRENE SOSA  
BOOK 1101 PAGE 75  
#59 GLENACOM ROAD

MAP 87.5 BLOCK 1 LOT 90  
NOW OR FORMERLY  
MAPLE HILL ESTATES  
HOMEOWNER'S ASSOCIATION, INC.  
BOOK 887 PAGE 26  
PARCEL AREA  
3,070,669 S.F.±  
70.49286 ACRES±

MAP 87.9 BLOCK 1 LOT 1  
NOW OR FORMERLY  
NYS ELECTRIC & GAS CORP.  
BOOK 194 PAGE 64  
OFF SUMMIT CIRCLE

MAP 87.5 BLOCK 1 LOT 5  
NOW OR FORMERLY  
JOHN P. GALLAGHER &  
CAROL A. GALLAGHER  
BOOK 774 PAGE 704  
#123 KIA ORA BLVD.

MAP 87.5 BLOCK 1 LOT 3  
NOW OR FORMERLY  
CRAIG L. PASCHETTI &  
ELIZABETH ANN PASCHETTI  
BOOK 1158 PAGE 307  
#5 BIRCH LANE

MAP 87.5 BLOCK 1 LOT 2  
NOW OR FORMERLY  
GARY PREVOSTO &  
MARY PREVOSTO  
BOOK 1504 PAGE 164  
#11 BIRCH LANE

MAP 87.5 BLOCK 1 LOT 1  
NOW OR FORMERLY  
BERNARD SMALL &  
DOROTHY SMALL  
BOOK 1602 PAGE 293  
#15 BIRCH LANE

MAP 87.9 BLOCK 1 LOT 7  
NOW OR FORMERLY  
AMANDA K. LEVINE &  
MICHAEL S. LEVINE  
BOOK 1991 PAGE 449  
#22 BIRCH LANE

MAP 87.9 BLOCK 1 LOT 5  
NOW OR FORMERLY  
VINCENT CARINO  
BOOK 1813 PAGE 217  
#36 WALTON DRIVE

MAP 87.9 BLOCK 1 LOT 4  
NOW OR FORMERLY  
JOSEPH ARMISTO &  
RUTH ARMISTO  
BOOK 748 PAGE 876  
#40 WALTON DRIVE

MAP 87.9 BLOCK 1 LOT 3  
NOW OR FORMERLY  
EDWARD WECHSLER &  
SUZANNE WECHSLER  
BOOK 1675 PAGE 288  
#44 WALTON DRIVE

MAP 87.9 BLOCK 1 LOT 2  
NOW OR FORMERLY  
PATRICIA GONDOLFO  
BOOK 1508 PAGE 26  
#49 WALTON DRIVE

MAP 87.9 BLOCK 1 LOT 51  
NOW OR FORMERLY  
MICHAEL SHAW &  
LINDA SHAW  
BOOK 769 PAGE 169  
#53 WALTON DRIVE

MAP 87.9 BLOCK 1 LOT 44  
NOW OR FORMERLY  
GERARD D. HANRAHAN  
BOOK 1047 PAGE 54  
#25 SUMMIT CIRCLE DRIVE

MAP 87.9 BLOCK 1 LOT 43  
NOW OR FORMERLY  
ROBERT A. AMICUCCI &  
PATRICIA A. AMICUCCI  
BOOK 1732 PAGE 344  
#27 SUMMIT CIRCLE DRIVE

MAP 87.9 BLOCK 1 LOT 32  
NOW OR FORMERLY  
NYS ELECTRIC & GAS CORP.  
BOOK 549 PAGE 241  
MOUNTAIN DRIVE

HOMELAND TOWERS, LLC  
9 HARMONY STREET  
2nd FLOOR  
DANBURY, CT 06810  
(203) 297-6345

NEW YORK SMSA  
LIMITED PARTNERSHIP  
d/b/a

**verizon**  
WIRELESS

4 CENTERCROSS ROAD  
WEST NYACK, NY 10994

| ZONING DRAWINGS |                            |
|-----------------|----------------------------|
| 5               | 12/02/22 ISSUED FOR ZONING |
| 4               | 11/22/22 ISSUED FOR ZONING |
| 3               | 11/04/22 ISSUED FOR ZONING |
| 2               | 10/26/22 ISSUED FOR ZONING |
| 1               | 05/07/20 ISSUED FOR ZONING |
| 0               | 01/20/20 ISSUED FOR ZONING |
| C               | 01/02/20 ISSUED FOR REVIEW |
| B               | 11/07/19 ISSUED FOR REVIEW |
| A               | 08/27/19 ISSUED FOR REVIEW |

Dewberry Engineers Inc.  
800 PARSIPPANY ROAD  
SUITE 301  
PARSIPPANY, NJ 07054  
PHONE: 973.739.9400  
FAX: 973.739.8710

DAVID REVETTE, P.E.  
NY LICENSE No. 101758

|                 |          |
|-----------------|----------|
| DRAWN BY:       | JC/KFM   |
| REVIEWED BY:    | MS       |
| CHECKED BY:     | DER      |
| PROJECT NUMBER: | 50114387 |
| JOB NUMBER:     | 50114388 |
| SITE ADDRESS:   |          |

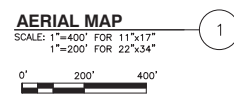
WALTON DRIVE  
MAHOPAC, NY 10541  
PUTNAM COUNTY

SHEET TITLE

AERIAL MAP

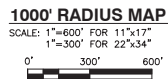
SHEET NUMBER

- NOTES:
1. AERIAL PLAN COURTESY OF GOOGLE MAPS.
  2. SEE ABUTTER LIST ON Z-3, Z-4 AND Z-5 FOR INFORMATION PROVIDED BY TOWN OF CARMEL.





NOTE:  
 1. RADIUS MAP IS BASED ON PUBLICLY AVAILABLE INFORMATION PROVIDED BY THE TOWNS OF CARMEL AND SOMERS, AND WESTCHESTER & PUTNAM COUNTIES.



1

  
 HOMELAND TOWERS, LLC  
 9 HARMONY STREET  
 2nd FLOOR  
 DANBURY, CT 06810  
 (203) 297-6345  
 NEW YORK SMSA  
 LIMITED PARTNERSHIP  
 d/b/a  
**verizon**  
 WIRELESS  
 4 CENTEROCK ROAD  
 WEST NYACK, NY 10994

**GLENACOM LAKE**

**ZONING DRAWINGS**

|   |          |                   |
|---|----------|-------------------|
| 5 | 12/02/22 | ISSUED FOR ZONING |
| 4 | 11/22/22 | ISSUED FOR ZONING |
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| C | 01/02/20 | ISSUED FOR REVIEW |
| B | 11/07/19 | ISSUED FOR REVIEW |
| A | 09/27/19 | ISSUED FOR REVIEW |

  
 Dewberry Engineers Inc.

600 PARSIPPANY ROAD  
 SUITE 301  
 PARSIPPANY, NJ 07054  
 PHONE: 973.739.9400  
 FAX: 973.739.9710



|                 |          |
|-----------------|----------|
| DRAWN BY:       | JC/KFM   |
| REVIEWED BY:    | MS       |
| CHECKED BY:     | DER      |
| PROJECT NUMBER: | 50114387 |
| JOB NUMBER:     | 50114388 |
| SITE ADDRESS:   |          |

WALTON DRIVE  
 MAHOPAC, NY 10541  
 PUTNAM COUNTY

|                  |  |
|------------------|--|
| SHEET TITLE      |  |
| 1000' RADIUS MAP |  |
| SHEET NUMBER     |  |

TOWN OF CARMEL - PUTNAM COUNTY

| MAP ID | MAP  | BLOCK | LOT     | PROPERTY ADDRESS                    | OWNER NAME         | OWNER ADDRESS                                  |
|--------|------|-------|---------|-------------------------------------|--------------------|------------------------------------------------|
| 1      | 87.5 | 1     | 1       | 15 BIRCH LN, MAHOPAC, NY 10541      | BERNARD SMALL      | 15 BIRCH LN, MAHOPAC, NY 10541                 |
| 2      | 87.5 | 1     | 2       | 11 BIRCH LN, MAHOPAC, NY 10541      | GARY PREVOSTO      | 11 BIRCH LN, MAHOPAC, NY 10541                 |
| 3      | 87.5 | 1     | 3       | 5 BIRCH LN, MAHOPAC, NY 10541       | THOMAS MIGLIO      | 5 BIRCH LN, MAHOPAC, NY 10541                  |
| 4      | 87.5 | 1     | 4       | 1 BIRCH LN, MAHOPAC, NY 10541       | MICHAEL TRAINOR    | 1 BIRCH LN, MAHOPAC, NY 10541                  |
| 5      | 87.5 | 1     | 5       | 123 KIA ORA BLVD, MAHOPAC, NY 10541 | JOSE HERNANDEZ     | 123 KIA ORA BLVD, MAHOPAC, NY 10541            |
| 6      | 87.5 | 1     | 6       | 163 KIA ORA BLVD, MAHOPAC, NY 10541 | PENNY FIORIO       | 163 KIA ORA BLVD, MAHOPAC, NY 10541            |
| 7      | 87.5 | 1     | 7-9000  | 90 MAPLE HILL DR, MAHOPAC, NY 10541 | JESSICA FELICIANO  | 23 MAPLE HILL DR, MAHOPAC, NY 10541            |
| 8      | 87.5 | 1     | 8-9100  | 91 MAPLE HILL DR, MAHOPAC, NY 10541 | MARIANNE SCOFIELD  | 3 MAPLE HILL DR, MAHOPAC, NY 10541             |
| 9      | 87.5 | 1     | 9-9200  | 92 MAPLE HILL DR, MAHOPAC, NY 10541 | JOAN SEGAL         | 18 MAPLE HILL DR, MAHOPAC, NY 10541            |
| 10     | 87.5 | 1     | 10-100  | 1 MAPLE HILL DR, MAHOPAC, NY 10541  | KYLE TRILLAS       | 1 MAPLE HILL DR, MAHOPAC, NY 10541             |
| 11     | 87.5 | 1     | 11-200  | 2 MAPLE HILL DR, MAHOPAC, NY 10541  | NUNZIO SQUILLANTE  | 2 MAPLE HILL DR, MAHOPAC, NY 10541             |
| 12     | 87.5 | 1     | 12-300  | 3 MAPLE HILL DR, MAHOPAC, NY 10541  | MARIANNE SCOFIELD  | 3 MAPLE HILL DR, MAHOPAC, NY 10541             |
| 13     | 87.5 | 1     | 13-400  | 4 MAPLE HILL DR, MAHOPAC, NY 10541  | ROSETTA DELUCA     | 4 MAPLE HILL DR, MAHOPAC, NY 10541             |
| 14     | 87.5 | 1     | 14-500  | 5 MAPLE HILL DR, MAHOPAC, NY 10541  | ARMINDO CARVALHO   | 5 MAPLE HILL DR, MAHOPAC, NY 10541             |
| 15     | 87.5 | 1     | 15-600  | 6 MAPLE HILL DR, MAHOPAC, NY 10541  | JOAN BURTT         | 39 BLAIR HEIGHTS, CARMEL, NY 10512             |
| 16     | 87.5 | 1     | 16-700  | 7 MAPLE HILL DR, MAHOPAC, NY 10541  | KRISTINE DAGNINO   | 7 MAPLE HILL DR, MAHOPAC, NY 10541             |
| 17     | 87.5 | 1     | 17-800  | 8 MAPLE HILL DR, MAHOPAC, NY 10541  | MICHAEL CIRILLO    | 8 MAPLE HILL DR, MAHOPAC, NY 10541             |
| 18     | 87.5 | 1     | 18-900  | 9 MAPLE HILL DR, MAHOPAC, NY 10541  | SUSAN PALDIN       | 9 MAPLE HILL DR, MAHOPAC, NY 10541             |
| 19     | 87.5 | 1     | 19-7200 | 72 MAPLE HILL DR, MAHOPAC, NY 10541 | ANTHONY FABIANO    | PO BOX 634, MAHOPAC, NY 10541                  |
| 20     | 87.5 | 1     | 20-7300 | 73 MAPLE HILL DR, MAHOPAC, NY 10541 | MICHAEL MURPHY     | 12 MAPLE HILL DR, MAHOPAC, NY 10541            |
| 21     | 87.5 | 1     | 21-7400 | 74 MAPLE HILL DR, MAHOPAC, NY 10541 | CORINNE MARANO     | 14 MAPLE HILL DR, MAHOPAC, NY 10541            |
| 22     | 87.5 | 1     | 22-1000 | 10 MAPLE HILL DR, MAHOPAC, NY 10541 | MARY JANE MARCHUT  | 10 MAPLE HILL DR, MAHOPAC, NY 10541            |
| 23     | 87.5 | 1     | 23-1100 | 11 MAPLE HILL DR, MAHOPAC, NY 10541 | DANIEL CAHILL      | 11 MAPLE HILL DR, MAHOPAC, NY 10541            |
| 24     | 87.5 | 1     | 24-1200 | 12 MAPLE HILL DR, MAHOPAC, NY 10541 | MICHAEL MURPHY     | 12 MAPLE HILL DR, MAHOPAC, NY 10541            |
| 25     | 87.5 | 1     | 25-1300 | 13 MAPLE HILL DR, MAHOPAC, NY 10541 | FRANK LOMBARDI     | 13 MAPLE HILL DR, MAHOPAC, NY 10541            |
| 26     | 87.5 | 1     | 26-1400 | 14 MAPLE HILL DR, MAHOPAC, NY 10541 | CORINNE MARANO     | 14 MAPLE HILL DR, MAHOPAC, NY 10541            |
| 27     | 87.5 | 1     | 27-1500 | 15 MAPLE HILL DR, MAHOPAC, NY 10541 | HALIMA ANDERSON    | 15 MAPLE HILL DR, MAHOPAC, NY 10541            |
| 28     | 87.5 | 1     | 28-1600 | 16 MAPLE HILL DR, MAHOPAC, NY 10541 | LINDA MORREALE     | 16 MAPLE HILL DR, MAHOPAC, NY 10541            |
| 29     | 87.5 | 1     | 29-1700 | 17 MAPLE HILL DR, MAHOPAC, NY 10541 | ANTHONY FABIANO    | PO BOX 634, MAHOPAC, NY 10541                  |
| 30     | 87.5 | 1     | 30-1800 | 18 MAPLE HILL DR, MAHOPAC, NY 10541 | JOAN SEGAL         | 18 MAPLE HILL DR, MAHOPAC, NY 10541            |
| 31     | 87.5 | 1     | 31-1900 | 19 MAPLE HILL DR, MAHOPAC, NY 10541 | RICHARD SALAT      | 19 MAPLE HILL DR, MAHOPAC, NY 10541            |
| 32     | 87.5 | 1     | 32-2000 | 20 MAPLE HILL DR, MAHOPAC, NY 10541 | JOSEPH DE CLEMENTE | 20 MAPLE HILL DR, MAHOPAC, NY 10541            |
| 33     | 87.5 | 1     | 33-2100 | 21 MAPLE HILL DR, MAHOPAC, NY 10541 | LORETTA MCGRATH    | 21 MAPLE HILL DR, MAHOPAC, NY 10541            |
| 34     | 87.5 | 1     | 34-2200 | 22 MAPLE HILL DR, MAHOPAC, NY 10541 | JAMES MASSI        | 22 MAPLE HILL DR, MAHOPAC, NY 10541            |
| 35     | 87.5 | 1     | 35-2300 | 23 MAPLE HILL DR, MAHOPAC, NY 10541 | JESSICA FELICIANO  | 23 MAPLE HILL DR, MAHOPAC, NY 10541            |
| 36     | 87.5 | 1     | 36-7500 | 75 MAPLE HILL DR, MAHOPAC, NY 10541 | MICHAEL GIBBONS    | 47 MAPLE HILL DR, MAHOPAC, NY 10541            |
| 37     | 87.5 | 1     | 37-7600 | 76 MAPLE HILL DR, MAHOPAC, NY 10541 | LALESSA GONAJ      | 45 MAPLE HILL DR, MAHOPAC, NY 10541            |
| 38     | 87.5 | 1     | 38-7700 | 77 MAPLE HILL DR, MAHOPAC, NY 10541 | CHERIE SCHILLO     | 48 MAPLE HILL DR, MAHOPAC, NY 10541            |
| 39     | 87.5 | 1     | 39-7800 | 78 MAPLE HILL DR, MAHOPAC, NY 10541 | LINDA MINNECI      | 49 MAPLE HILL DR, MAHOPAC, NY 10541            |
| 40     | 87.5 | 1     | 40-7900 | 79 MAPLE HILL DR, MAHOPAC, NY 10541 | JOANNE CRUZ        | 35 MAPLE HILL DR, MAHOPAC, NY 10541            |
| 41     | 87.5 | 1     | 41-8000 | 80 MAPLE HILL DR, MAHOPAC, NY 10541 | ANGELO SAVINO      | 1408 FLINTLOCK WAY, YORKTOWN HEIGHTS, NY 10598 |
| 42     | 87.5 | 1     | 42-3400 | 34 MAPLE HILL DR, MAHOPAC, NY 10541 | JAMES DAVID MOORE  | 34 MAPLE HILL DR, MAHOPAC, NY 10541            |
| 43     | 87.5 | 1     | 43-3500 | 35 MAPLE HILL DR, MAHOPAC, NY 10541 | JOANNE CRUZ        | 35 MAPLE HILL DR, MAHOPAC, NY 10541            |
| 44     | 87.5 | 1     | 44-4500 | 45 MAPLE HILL DR, MAHOPAC, NY 10541 | LALESSA GONAJ      | 45 MAPLE HILL DR, MAHOPAC, NY 10541            |
| 45     | 87.5 | 1     | 45-4600 | 46 MAPLE HILL DR, MAHOPAC, NY 10541 | YOUNG-SUK LEE      | 46 MAPLE HILL DR, MAHOPAC, NY 10541            |

| MAP ID | MAP  | BLOCK | LOT     | PROPERTY ADDRESS                         | OWNER NAME                     | OWNER ADDRESS                       |
|--------|------|-------|---------|------------------------------------------|--------------------------------|-------------------------------------|
| 46     | 87.5 | 1     | 46-4700 | 47 MAPLE HILL DR, MAHOPAC, NY 10541      | MICHAEL GIBBONS                | 47 MAPLE HILL DR, MAHOPAC, NY 10541 |
| 47     | 87.5 | 1     | 47-4800 | 48 MAPLE HILL DR, MAHOPAC, NY 10541      | CHERIE SCHILLO                 | 48 MAPLE HILL DR, MAHOPAC, NY 10541 |
| 48     | 87.5 | 1     | 48-4900 | 49 MAPLE HILL DR, MAHOPAC, NY 10541      | LINDA MINNECI                  | 49 MAPLE HILL DR, MAHOPAC, NY 10541 |
| 49     | 87.5 | 1     | 49-5000 | 50 MAPLE HILL DR, MAHOPAC, NY 10541      | ANGELA LOPANE                  | 50 MAPLE HILL DR, MAHOPAC, NY 10541 |
| 50     | 87.5 | 1     | 50-5100 | 51 MAPLE HILL DR, MAHOPAC, NY 10541      | THOMAS GRIMALDI                | 51 MAPLE HILL DR, MAHOPAC, NY 10541 |
| 51     | 87.5 | 1     | 51-5200 | 52 MAPLE HILL DR, MAHOPAC, NY 10541      | LISA SPENCER                   | 52 MAPLE HILL DR, MAHOPAC, NY 10541 |
| 52     | 87.5 | 1     | 52-5300 | 53 MAPLE HILL DR, MAHOPAC, NY 10541      | DENNIS LUSARDI                 | 53 MAPLE HILL DR, MAHOPAC, NY 10541 |
| 53     | 87.5 | 1     | 53-5400 | 54 MAPLE HILL DR, MAHOPAC, NY 10541      | PATRICIA DESANTIS FAMILY TRUST | 54 MAPLE HILL DR, MAHOPAC, NY 10541 |
| 54     | 87.5 | 1     | 54-5500 | 55 MAPLE HILL DR, MAHOPAC, NY 10541      | EBONY HUNTLEY                  | 55 MAPLE HILL DR, MAHOPAC, NY 10541 |
| 55     | 87.5 | 1     | 55-5600 | 56 MAPLE HILL DR, MAHOPAC, NY 10541      | MIKE DI LIETO                  | 56 MAPLE HILL DR, MAHOPAC, NY 10541 |
| 56     | 87.5 | 1     | 56-5700 | 57 MAPLE HILL DR, MAHOPAC, NY 10541      | KATHLEEN DIMEO                 | 57 MAPLE HILL DR, MAHOPAC, NY 10541 |
| 57     | 87.5 | 1     | 57-5800 | 58 MAPLE HILL DR, MAHOPAC, NY 10541      | GEORGE MARTINEZ, SR.           | 58 MAPLE HILL DR, MAHOPAC, NY 10541 |
| 58     | 87.5 | 1     | 58-5900 | 59 MAPLE HILL DR, MAHOPAC, NY 10541      | JOHN STABILE                   | 59 MAPLE HILL DR, MAHOPAC, NY 10541 |
| 59     | 87.5 | 1     | 59-6000 | 60 MAPLE HILL DR, MAHOPAC, NY 10541      | ROSANNE DINARDO                | 60 MAPLE HILL DR, MAHOPAC, NY 10541 |
| 60     | 87.5 | 1     | 60-6100 | 61 MAPLE HILL DR, MAHOPAC, NY 10541      | CHARLES BARTON                 | 61 MAPLE HILL DR, MAHOPAC, NY 10541 |
| 61     | 87.5 | 1     | 61-8100 | 81 MAPLE HILL DR, MAHOPAC, NY 10541      | KATHLEEN DIMEO                 | 57 MAPLE HILL DR, MAHOPAC, NY 10541 |
| 62     | 87.5 | 1     | 62-8200 | 82 MAPLE HILL DR, MAHOPAC, NY 10541      | GEORGE MARTINEZ, SR.           | 58 MAPLE HILL DR, MAHOPAC, NY 10541 |
| 63     | 87.5 | 1     | 63-8300 | 83 MAPLE HILL DR, MAHOPAC, NY 10541      | CHARLES BARTON                 | 61 MAPLE HILL DR, MAHOPAC, NY 10541 |
| 64     | 87.5 | 1     | 64-8400 | 84 MAPLE HILL DR, MAHOPAC, NY 10541      | EDWARD BALLUS                  | 62 MAPLE HILL DR, MAHOPAC, NY 10541 |
| 65     | 87.5 | 1     | 65-8500 | 85 MAPLE HILL DR, MAHOPAC, NY 10541      | DIANE MATELSKY                 | 63 MAPLE HILL DR, MAHOPAC, NY 10541 |
| 66     | 87.5 | 1     | 66-8600 | 86 MAPLE HILL DR, MAHOPAC, NY 10541      | ANGELO PRESTAMO                | 64 MAPLE HILL DR, MAHOPAC, NY 10541 |
| 67     | 87.5 | 1     | 67-8700 | 87 MAPLE HILL DR, MAHOPAC, NY 10541      | VALENTINA DUHANI               | 65 MAPLE HILL DR, MAHOPAC, NY 10541 |
| 68     | 87.5 | 1     | 68-8800 | 88 MAPLE HILL DR, MAHOPAC, NY 10541      | WILLIAM LORETTA BOWENS         | 66 MAPLE HILL DR, MAHOPAC, NY 10541 |
| 69     | 87.5 | 1     | 69-8900 | 89 MAPLE HILL DR, MAHOPAC, NY 10541      | ELIZABETH BARKSDALE            | 67 MAPLE HILL DR, MAHOPAC, NY 10541 |
| 70     | 87.5 | 1     | 70-9000 | 90 MAPLE HILL DR, MAHOPAC, NY 10541      | ANDREW ROBERTO                 | 68 MAPLE HILL DR, MAHOPAC, NY 10541 |
| 71     | 87.5 | 1     | 71-9100 | 91 MAPLE HILL DR, MAHOPAC, NY 10541      | JEANNE MCCUGAN                 | 69 MAPLE HILL DR, MAHOPAC, NY 10541 |
| 72     | 87.5 | 1     | 72-7000 | 72 MAPLE HILL DR, MAHOPAC, NY 10541      | KAREN CONTI                    | 70 MAPLE HILL DR, MAHOPAC, NY 10541 |
| 73     | 87.5 | 1     | 73-7100 | 73 MAPLE HILL DR, MAHOPAC, NY 10541      | DOMINICK DIMICCO               | 71 MAPLE HILL DR, MAHOPAC, NY 10541 |
| 74     | 87.5 | 1     | 74-8600 | 86 MAPLE HILL DR, MAHOPAC, NY 10541      | ANGELO PRESTAMO                | 64 MAPLE HILL DR, MAHOPAC, NY 10541 |
| 75     | 87.5 | 1     | 75-8500 | 85 MAPLE HILL DR, MAHOPAC, NY 10541      | ANDREW ROBERTO                 | 68 MAPLE HILL DR, MAHOPAC, NY 10541 |
| 76     | 87.5 | 1     | 76-8400 | 84 MAPLE HILL DR, MAHOPAC, NY 10541      | VALENTINA DUHANI               | 65 MAPLE HILL DR, MAHOPAC, NY 10541 |
| 77     | 87.5 | 1     | 77-3300 | 33 MAPLE HILL DR, MAHOPAC, NY 10541      | ROBERT KELLY                   | 33 MAPLE HILL DR, MAHOPAC, NY 10541 |
| 78     | 87.5 | 1     | 78-3200 | 32 MAPLE HILL DR, MAHOPAC, NY 10541      | MARY TYSON                     | 32 MAPLE HILL DR, MAHOPAC, NY 10541 |
| 79     | 87.5 | 1     | 79-3100 | 31 MAPLE HILL DR, MAHOPAC, NY 10541      | ASSER TANTAWI                  | 220 BRIARWOOD DR, SOMERS, NY 10589  |
| 80     | 87.5 | 1     | 80-3000 | 30 MAPLE HILL DR, MAHOPAC, NY 10541      | RICHARD SANTOS                 | 30 MAPLE HILL DR, MAHOPAC, NY 10541 |
| 81     | 87.5 | 1     | 81-2900 | 29 MAPLE HILL DR, MAHOPAC, NY 10541      | GLORIA CLEMENTE                | 29 MAPLE HILL DR, MAHOPAC, NY 10541 |
| 82     | 87.5 | 1     | 82-2800 | 28 MAPLE HILL DR, MAHOPAC, NY 10541      | LINDA ALIOTTA-FOLEY            | 28 MAPLE HILL DR, MAHOPAC, NY 10541 |
| 83     | 87.5 | 1     | 83-2700 | 27 MAPLE HILL DR, MAHOPAC, NY 10541      | FREDERICK CAMILLI              | 27 MAPLE HILL DR, MAHOPAC, NY 10541 |
| 84     | 87.5 | 1     | 84-2600 | 26 MAPLE HILL DR, MAHOPAC, NY 10541      | ROBERT DELEON                  | 26 MAPLE HILL DR, MAHOPAC, NY 10541 |
| 85     | 87.5 | 1     | 85-2500 | 25 MAPLE HILL DR, MAHOPAC, NY 10541      | GARY ULRICH                    | 25 MAPLE HILL DR, MAHOPAC, NY 10541 |
| 86     | 87.5 | 1     | 86-2400 | 24 MAPLE HILL DR, MAHOPAC, NY 10541      | BRIAN KENNELLY                 | 24 MAPLE HILL DR, MAHOPAC, NY 10541 |
| 87     | 87.5 | 1     | 87-8900 | 89 MAPLE HILL DR, MAHOPAC, NY 10541      | ASSER TANTAWI                  | 220 MITCHELL RD, SOMERS, NY 10589   |
| 88     | 87.5 | 1     | 88-8800 | 88 MAPLE HILL DR, MAHOPAC, NY 10541      | BRIAN KENNELLY                 | 24 MAPLE HILL DR, MAHOPAC, NY 10541 |
| 89     | 87.5 | 1     | 89-8700 | 87 MAPLE HILL DR, MAHOPAC, NY 10541      | ROBERT KELLY                   | 33 MAPLE HILL DR, MAHOPAC, NY 10541 |
| 90     | 87.5 | 1     | 91      | 205 UNION VALLEY ROAD, MAHOPAC, NY 10541 | DAVID W - EST. PARENT          | PO BOX 396, MAHOPAC, NY 10541       |

| MAP ID | MAP  | BLOCK | LOT | PROPERTY ADDRESS                         | OWNER NAME                                   | OWNER ADDRESS                            |
|--------|------|-------|-----|------------------------------------------|----------------------------------------------|------------------------------------------|
| 91     | 87.5 | 1     | 92  | 191 UNION VALLEY ROAD, MAHOPAC, NY 10541 | PHUONG HUYNH                                 | 2935 EAST COLONIAL DR, ORLANDO, FL 32803 |
| 92     | 87.5 | 1     | 93  | 185 UNION VALLEY RD, MAHOPAC, NY 10541   | JONATHAN ZAMORA                              | 185 UNION VALLEY RD, MAHOPAC, NY 10541   |
| 92     | 87.5 | 1     | 93  | 185 UNION VALLEY RD, MAHOPAC, NY 10541   | YESENIA BARRERA                              | 185 UNION VALLEY RD, MAHOPAC, NY 10541   |
| 93     | 87.5 | 1     | 94  | 179 UNION VALLEY RD, MAHOPAC, NY 10541   | WILLIAM PEARCE                               | 179 UNION VALLEY RD, MAHOPAC, NY 10541   |
| 94     | 87.5 | 1     | 95  | UNION VALLEY RD, MAHOPAC, NY 10541       | DAVID W PARENT - EST. ATTN: DAVID PARENT JR. | PO BOX 396, MAHOPAC, NY 10541            |
| 95     | 87.5 | 2     | 10  | 202 LAKEVIEW COURT, MAHOPAC, NY 10541    | MICHAEL RYAN                                 | PO BOX 769, MAHOPAC, NY 10541            |
| 96     | 87.5 | 2     | 11  | 210 LAKEVIEW CT, MAHOPAC, NY 10541       | ANNETTE ROMITO                               | 210 LAKEVIEW CT, MAHOPAC, NY 10541       |
| 97     | 87.5 | 2     | 12  | 214 LAKEVIEW CT, MAHOPAC, NY 10541       | ADRIENNE WEXLER                              | 55 E 11TH ST, NEW YORK, NY 10003         |
| 98     | 87.5 | 2     | 13  | 218 LAKEVIEW CT, MAHOPAC, NY 10541       | RAEANN MAZZEI                                | 218 LAKEVIEW CT, MAHOPAC, NY 10541       |
| 99     | 87.5 | 2     | 14  | 222 LAKEVIEW CT, MAHOPAC, NY 10541       | LORNA LEVANT CLEMENTS                        | PO BOX 826, MAHOPAC, NY 10541            |
| 100    | 87.5 | 2     | 15  | 226 LAKEVIEW CT, MAHOPAC, NY 10541       |                                              |                                          |
| 101    | 87.5 | 2     | 16  | 228 LAKEVIEW CT, MAHOPAC, NY 10541       | GERARD AQUILINO                              | 228 LAKEVIEW CT, MAHOPAC, NY 10541       |
| 102    | 87.5 | 2     | 17  | 230 LAKEVIEW CT, MAHOPAC, NY 10541       | NICHOLAS CAPALBO                             | 230 LAKEVIEW CT, MAHOPAC, NY 10541       |
| 103    | 87.5 | 2     | 18  | 234 LAKEVIEW CT, MAHOPAC, NY 10541       | JOHN MORRIS                                  | PO BOX 395, MAHOPAC, NY 10541            |
| 104    | 87.5 | 2     | 19  | 238 LAKEVIEW CT, MAHOPAC, NY 10541       | SHAKUNTALA BALRAM                            | 238 LAKEVIEW CT, MAHOPAC, NY 10541       |
| 105    | 87.5 | 2     | 20  | 242 LAKEVIEW CT, MAHOPAC, NY 10541       | ANTHONY & LAURIE TROTTA                      | 242 LAKEVIEW CT, MAHOPAC, NY 10541       |
| 106    | 87.5 | 2     | 21  | 244 LAKEVIEW CT, MAHOPAC, NY 10541       | RANDY ABRAMS                                 | 244 LAKEVIEW CT, MAHOPAC, NY 10541       |
| 107    | 87.5 | 2     | 22  | 110 KIA ORA BLVD, MAHOPAC, NY 10541      | JOHN HLINKA                                  | 110 KIA ORA BLVD, MAHOPAC, NY 10541      |
| 108    | 87.5 | 2     | 23  | 106 KIA ORA BLVD, MAHOPAC, NY 10541      | VINCENTS ETTERE                              | 106 KIA ORA BLVD, MAHOPAC, NY 10541      |
| 109    | 87.5 | 2     | 24  | 102 KIA ORA BLVD, MAHOPAC, NY 10541      | KEITH BEHLER                                 | 102 KIA ORA BLVD, MAHOPAC, NY 10541      |
| 110    | 87.5 | 2     | 25  | 98 KIA ORA BLVD, MAHOPAC, NY 10541       | KOENIGSMANN & SEPE TRUST                     | 98 KIA ORA BLVD, MAHOPAC, NY 10541       |
| 111    | 87.5 | 2     | 26  | 94 KIA ORA BLVD, MAHOPAC, NY 10541       | DARRYL MACK                                  | 94 KIA ORA BLVD, MAHOPAC, NY 10541       |
| 112    | 87.5 | 2     | 27  | 84 KIA ORA BLVD, MAHOPAC, NY 10541       | ANTHONY LAUREN FORMALA                       | 84 KIA ORA BLVD, MAHOPAC, NY 10541       |
| 113    | 87.5 | 2     | 28  | 78 KIA ORA BLVD, MAHOPAC, NY 10541       | KIM SMITH                                    | 78 KIA ORA BLVD, MAHOPAC, NY 10541       |
| 114    | 87.5 | 2     | 29  | 74 KIA ORA BLVD, MAHOPAC, NY 10541       | JAMES R STRIPE LIVING TRUST                  | 74 KIA ORA BLVD, MAHOPAC, NY 10541       |
| 115    | 87.5 | 2     | 30  | 72 KIA ORA BLVD, MAHOPAC, NY 10541       | LEONARD CUFFONE                              | 72 KIA ORA BLVD, MAHOPAC, NY 10541       |
| 116    | 87.5 | 2     | 45  | 67 KIA ORA BLVD, MAHOPAC, NY 10541       | PASKA DEVIKUNJ PASHKA LULI                   | 67 KIA ORA BLVD, MAHOPAC, NY 10541       |
| 117    | 87.5 | 2     | 46  | 75 KIA ORA BLVD, MAHOPAC, NY 10541       | CHRISTOPHER MARINO                           | 75 KIA ORA BLVD, MAHOPAC, NY 10541       |
| 118    | 87.5 | 2     | 47  | 85 KIA ORA BLVD, MAHOPAC, NY 10541       | JASON SAVINO                                 | 85 KIA ORA BLVD, MAHOPAC, NY 10541       |
| 119    | 87.5 | 2     | 48  | 506 OVERLOOK DR SOUTH, MAHOPAC, NY 10541 | HUDSON VIANNA                                | 191 MARBLE AVE, PLEASANTVILLE, NY 10570  |
| 120    | 87.5 | 2     | 49  | 510 OVERLOOK DR SOUTH, MAHOPAC, NY 10541 | THOMAS E BOGAN PATRICIA A ROGAN              | 510 OVERLOOK DR SOUTH, MAHOPAC, NY 10541 |
| 121    | 87.5 | 2     | 50  | 514 OVERLOOK DR SOUTH, MAHOPAC, NY 10541 | THOMAS M KEHRER VIRGINIA C KNOX              | 514 OVERLOOK DR SOUTH, MAHOPAC, NY 10541 |
| 122    | 87.5 | 2     | 55  | 527 OVERLOOK DR SOUTH, MAHOPAC, NY 10541 | KEVIN CONNORS                                |                                          |

TOWN OF CARMEL - PUTNAM COUNTY

| MAP ID | MAP  | BLOCK | LOT     | PROPERTY ADDRESS                         | OWNER NAME                      | OWNER ADDRESS                                  |
|--------|------|-------|---------|------------------------------------------|---------------------------------|------------------------------------------------|
| 133    | 87.5 | 2     | 66      | 22 WALTON DR. MAHOPAC, NY 10541          | ENZO TEDESCO                    | 22 WALTON DR. MAHOPAC, NY 10541                |
| 134    | 87.5 | 2     | 67      | 3 MOUNTAIN VIEW DR. MAHOPAC, NY 10541    | DENNIS RECK                     | 3 MOUNTAIN VIEW DR. MAHOPAC, NY 10541          |
| 135    | 87.5 | 2     | 68      | 6 BIRCH LN. MAHOPAC, NY 10541            | DONALD SAILOR                   | 6 BIRCH LN. MAHOPAC, NY 10541                  |
| 136    | 87.5 | 2     | 69      | 10 BIRCH LN. MAHOPAC, NY 10541           | ERIC OLIVER                     | 10 BIRCH LN. MAHOPAC, NY 10541                 |
| 137    | 87.5 | 2     | 70      | 14 BIRCH LN. MAHOPAC, NY 10541           | AJDN MESHAI                     | 14 BIRCH LN. MAHOPAC, NY 10541                 |
| 138    | 87.5 | 2     | 71      | 18 BIRCH LN. MAHOPAC, NY 10541           | ZACHARY OLIVA                   | 18 BIRCH LN. MAHOPAC, NY 10541                 |
| 139    | 87.5 | 3     | 1       | 212 UNION VALLEY RD. MAHOPAC, NY 10541   | CHRISTINE BROWN                 | 212 UNION VALLEY RD. MAHOPAC, NY 10541         |
| 140    | 87.5 | 3     | 2       | 218 UNION VALLEY RD. MAHOPAC, NY 10541   | CHARLES PAROUBEK                | PO BOX 956, BALDWIN PLACE, NY 10555            |
| 141    | 87.5 | 3     | 3       | 225 UNION VALLEY RD. MAHOPAC, NY 10541   | SAVERIO SADOVIA                 | 225 UNION VALLEY RD. MAHOPAC, NY 10541         |
| 142    | 87.5 | 3     | 4       | 240 UNION VALLEY RD. MAHOPAC, NY 10541   | SCOTT JENNINGS                  | 240 UNION VALLEY RD. MAHOPAC, NY 10541         |
| 143    | 87.5 | 3     | 5       | 9 TEAKETTLE SPOUT RD. MAHOPAC, NY 10541  | RAYMOND GENOVESE                | 9 TEAKETTLE SPOUT RD. MAHOPAC, NY 10541        |
| 144    | 87.5 | 3     | 6       | 11 TEAKETTLE SPOUT RD. MAHOPAC, NY 10541 | EDWARD NIEVES                   | 11 TEAKETTLE SPOUT RD. MAHOPAC, NY 10541       |
| 145    | 87.5 | 3     | 7       | 15 TEAKETTLE SPOUT RD. MAHOPAC, NY 10541 | KEVIN KIERNAN                   | 15 TEAKETTLE SPOUT RD. MAHOPAC, NY 10541       |
| 146    | 87.5 | 3     | 8       | 12 TEAKETTLE SPOUT RD. MAHOPAC, NY 10541 | WALDIE MURRAY                   | 12 TEAKETTLE SPOUT RD. MAHOPAC, NY 10541       |
| 147    | 87.5 | 3     | 9       | 250 UNION VALLEY RD. MAHOPAC, NY 10541   | SELM BRAHIMI                    | 250 UNION VALLEY RD. MAHOPAC, NY 10541         |
| 148    | 87.5 | 3     | 10      | 260 UNION VALLEY RD. MAHOPAC, NY 10541   | JOHN DELUCCA                    | 22 CUNNINGHAM DR. LA GRANGEVILLE, NY 12540     |
| 149    | 87.5 | 3     | 11      | 264 UNION VALLEY RD. MAHOPAC, NY 10541   | ANGELA FUSCO                    | 264 UNION VALLEY RD. MAHOPAC, NY 10541         |
| 150    | 87.5 | 3     | 12      | 268 UNION VALLEY RD. MAHOPAC, NY 10541   | JAMES STIRPE                    | 268 UNION VALLEY RD. MAHOPAC, NY 10541         |
| 151    | 87.5 | 3     | 13      | 3 NORTHVIEW DR. MAHOPAC, NY 10541        | EDWIN PERCH                     | 3 NORTHVIEW DR. MAHOPAC, NY 10541              |
| 152    | 87.9 | 1     | 2       | 48 WALTON DR. MAHOPAC, NY 10541          | PATRICIA GONDOLFO               | 48 WALTON DR. MAHOPAC, NY 10541                |
| 153    | 87.9 | 1     | 3       | 44 WALTON DR. MAHOPAC, NY 10541          | EDWARD WECHSLER                 | 25 SHADY LN, MAHOPAC, NY 10541                 |
| 154    | 87.9 | 1     | 4       | 40 WALTON DR. MAHOPAC, NY 10541          | JOSEPH ARMISTO                  | 122 CRANE RD, CARMEL, NY 10512                 |
| 155    | 87.9 | 1     | 5       | 36 WALTON DR. MAHOPAC, NY 10541          | GUS GETSOS                      | 36 WALTON DR. MAHOPAC, NY 10541                |
| 156    | 87.9 | 1     | 6       | 30 WALTON DR. MAHOPAC, NY 10541          | PEARL MOHAMMED                  | 30 WALTON DR. MAHOPAC, NY 10541                |
| 157    | 87.9 | 1     | 7       | 22 BIRCH LN. MAHOPAC, NY 10541           | AMANDA LEVINE                   | 22 BIRCH LN. MAHOPAC, NY 10541                 |
| 158    | 87.9 | 1     | 8-3600  | 36 MAPLE HILL DR. MAHOPAC, NY 10541      | GEORGE BICKEL                   | PO BOX 303, LINCOLNDALE, NY 10540              |
| 159    | 87.9 | 1     | 9-3700  | 37 MAPLE HILL DR. MAHOPAC, NY 10541      | ROBERT FALAGUERRA               | 37 MAPLE HILL DR. MAHOPAC, NY 10541            |
| 160    | 87.9 | 1     | 10-3800 | 38 MAPLE HILL DR. MAHOPAC, NY 10541      | ANDRZEJ REJMAN                  | 38 MAPLE HILL DR. MAHOPAC, NY 10541            |
| 161    | 87.9 | 1     | 11-3900 | 39 MAPLE HILL DR. MAHOPAC, NY 10541      | CAROL ANN BURKE                 | 39 MAPLE HILL DR. MAHOPAC, NY 10541            |
| 162    | 87.9 | 1     | 12-4000 | 40 MAPLE HILL DR. MAHOPAC, NY 10541      | ANTHEYA MELY                    | 40 MAPLE HILL DR. MAHOPAC, NY 10541            |
| 163    | 87.9 | 1     | 13-4100 | 41 MAPLE HILL DR. MAHOPAC, NY 10541      | VALERIA LOPEZ                   | 41 MAPLE HILL DR. MAHOPAC, NY 10541            |
| 164    | 87.9 | 1     | 14-4200 | 42 MAPLE HILL DR. MAHOPAC, NY 10541      | SHEILA TRUC                     | 42 MAPLE HILL DR. MAHOPAC, NY 10541            |
| 165    | 87.9 | 1     | 15-4300 | 43 MAPLE HILL DR. MAHOPAC, NY 10541      | ANDREW LOMBARDI                 | 43 MAPLE HILL DR. MAHOPAC, NY 10541            |
| 166    | 87.9 | 1     | 16-4400 | 44 MAPLE HILL DR. MAHOPAC, NY 10541      | ANGELO SAVINO                   | 1408 FLINTLOCK WAY, YORKTOWN HEIGHTS, NY 10598 |
| 167    | 87.9 | 1     | 17      | 534 OVERLOOK DR. S. MAHOPAC, NY 10541    | THOMAS JUDGE                    | 534 OVERLOOK DR. S. MAHOPAC, NY 10541          |
| 168    | 87.9 | 1     | 19      | 63 HILLSIDE TER. MAHOPAC, NY 10541       | JOAO DE MELO                    | 63 HILLSIDE TER. MAHOPAC, NY 10541             |
| 169    | 87.9 | 1     | 20      | 57 HILLSIDE TER. MAHOPAC, NY 10541       | FRANK MERENDA                   | 57 HILLSIDE TER. MAHOPAC, NY 10541             |
| 170    | 87.9 | 1     | 21      | 51 HILLSIDE TER. MAHOPAC, NY 10541       | SALVATORE DIGRANDI              | 51 HILLSIDE TER. MAHOPAC, NY 10541             |
| 171    | 87.9 | 1     | 23      | 531 OVERLOOK DR. S. MAHOPAC, NY 10541    | ALFONSO & ANN GALLO IREVE TRUST | 531 OVERLOOK DR. S. MAHOPAC, NY 10541          |
| 172    | 87.9 | 1     | 24      | 26 MOUNTAIN VIEW DR. MAHOPAC, NY 10541   | AUGUST WILES                    | 26 MOUNTAIN VIEW DR. MAHOPAC, NY 10541         |
| 173    | 87.9 | 1     | 25      | 32 MOUNTAIN VIEW DR. MAHOPAC, NY 10541   | IRENE NARULA                    | 32 MOUNTAIN VIEW DR. MAHOPAC, NY 10541         |
| 174    | 87.9 | 1     | 26      | 36 MOUNTAIN VIEW DR. MAHOPAC, NY 10541   | TIMUR FILIPPOV                  | 36 MOUNTAIN VIEW DR. MAHOPAC, NY 10541         |
| 175    | 87.9 | 1     | 27      | 40 MOUNTAIN VIEW DR. MAHOPAC, NY 10541   | KIERAN CLARKE                   | 40 MOUNTAIN VIEW DR. MAHOPAC, NY 10541         |
| 176    | 87.9 | 1     | 28      | 44 MOUNTAIN VIEW DR. MAHOPAC, NY 10541   | REBECCA BIERHOFF                | 44 MOUNTAIN VIEW DR. MAHOPAC, NY 10541         |
| 177    | 87.9 | 1     | 29      | 48 MOUNTAIN VIEW DR. MAHOPAC, NY 10541   | WALTER BECKER                   | 48 MOUNTAIN VIEW DR. MAHOPAC, NY 10541         |

| MAP ID | MAP   | BLOCK | LOT  | PROPERTY ADDRESS                       | OWNER NAME                          | OWNER ADDRESS                          |
|--------|-------|-------|------|----------------------------------------|-------------------------------------|----------------------------------------|
| 178    | 87.9  | 1     | 30   | 54 MOUNTAIN VIEW DR. MAHOPAC, NY 10541 | RICHARD DEPOLO                      | 54 MOUNTAIN VIEW DR. MAHOPAC, NY 10541 |
| 179    | 87.9  | 1     | 31   |                                        | NYS ELEC & GAS CORP                 | 1 CITY CENTER FL 5, PORTLAND, ME 04101 |
| 180    | 87.9  | 1     | 32   |                                        | NYS ELEC & GAS CORP                 | 1 CITY CENTER FL 5, PORTLAND, ME 04101 |
| 181    | 87.9  | 1     | 33   | 26 SUMMIT CIRCLE DR. MAHOPAC, NY 10541 | PATRICK KOHLMAN                     | 26 SUMMIT CIRCLE DR. MAHOPAC, NY 10541 |
| 182    | 87.9  | 1     | 34   | 8 SUMMIT CIRCLE DR. MAHOPAC, NY 10541  | PATRICK BOYLE                       | 8 SUMMIT CIRCLE DR. MAHOPAC, NY 10541  |
| 183    | 87.9  | 1     | 35   | 35 MOUNTAIN VIEW DR. MAHOPAC, NY 10541 | AISLING O'HANLON                    | 35 MOUNTAIN VIEW DR. MAHOPAC, NY 10541 |
| 184    | 87.9  | 1     | 36   | 33 MOUNTAIN VIEW DR. MAHOPAC, NY 10541 | PHILIP GOLDSTEIN                    | 33 MOUNTAIN VIEW DR. MAHOPAC, NY 10541 |
| 185    | 87.9  | 1     | 37   | 25 WALTON DR. MAHOPAC, NY 10541        | JASON SIMONE                        | 25 WALTON DR. MAHOPAC, NY 10541        |
| 186    | 87.9  | 1     | 38   | 29 WALTON DR. MAHOPAC, NY 10541        | LINDA BOWMAN-WILLIAMS               | 29 WALTON DR. MAHOPAC, NY 10541        |
| 187    | 87.9  | 1     | 40   | 14 SUMMIT CIRCLE DR. MAHOPAC, NY 10541 | VINCENT GENTILE                     | 14 SUMMIT CIRCLE DR. MAHOPAC, NY 10541 |
| 188    | 87.9  | 1     | 41   | 18 SUMMIT CIRCLE DR. MAHOPAC, NY 10541 | LUIGI PAGANELLI                     | 18 SUMMIT CIRCLE DR. MAHOPAC, NY 10541 |
| 189    | 87.9  | 1     | 42   | 23 SUMMIT CIRCLE DR. MAHOPAC, NY 10541 | CARL VU                             | 23 SUMMIT CIRCLE DR. MAHOPAC, NY 10541 |
| 190    | 87.9  | 1     | 43   | 27 SUMMIT CIRCLE DR. MAHOPAC, NY 10541 | ROBERT AMICUCCI                     | 27 SUMMIT CIRCLE DR. MAHOPAC, NY 10541 |
| 191    | 87.9  | 1     | 44   | 25 SUMMIT CIRCLE DR. MAHOPAC, NY 10541 | GERARD HANRAHAN                     | 25 SUMMIT CIRCLE DR. MAHOPAC, NY 10541 |
| 192    | 87.9  | 1     | 45   | 19 SUMMIT CIRCLE DR. MAHOPAC, NY 10541 | DENNIS NORBY                        | 271 HILL ST, MAHOPAC, NY 10541         |
| 193    | 87.9  | 1     | 47   | 11 SUMMIT CIRCLE DR. MAHOPAC, NY 10541 | DONNA AQUILATO                      | 11 SUMMIT CIRCLE DR. MAHOPAC, NY 10541 |
| 194    | 87.9  | 1     | 48   | 3 SUMMIT CIRCLE DR. MAHOPAC, NY 10541  | MARY PALMER                         | 3 SUMMIT CIRCLE DR. MAHOPAC, NY 10541  |
| 195    | 87.9  | 1     | 49   | 43 WALTON DR. MAHOPAC, NY 10541        | TODD MCCORMACK                      | 43 WALTON DR. MAHOPAC, NY 10541        |
| 196    | 87.9  | 1     | 50   | 49 WALTON DR. MAHOPAC, NY 10541        | ROBERT CAVALLARO                    | 49 WALTON DR. MAHOPAC, NY 10541        |
| 197    | 87.9  | 1     | 51   | 53 WALTON DR. MAHOPAC, NY 10541        | LINDA SHAW                          | 53 WALTON DR. MAHOPAC, NY 10541        |
| 198    | 86.8  | 2     | 29   | 136 UNION VALLEY RD. MAHOPAC, NY 10541 | MARIE SWARM SANDRA SWARM MCDERMOTT  | 136 UNION VALLEY RD. MAHOPAC, NY 10541 |
| 199    | 86.8  | 2     | 30   | 146 UNION VALLEY RD. MAHOPAC, NY 10541 | VIRGINIA NICHOLSON                  | 146 UNION VALLEY RD. MAHOPAC, NY 10541 |
| 200    | 86.8  | 2     | 31   | 153 UNION VALLEY RD. MAHOPAC, NY 10541 | DAVID W. EST. PARENT                | PO BOX 396, MAHOPAC, NY 10541          |
| 201    | 86.8  | 2     | 32.1 | 25 DAHLIA DR. MAHOPAC, NY 10541        | PETER J CUOMO KATHERYN L. CUOMO     | 25 DAHLIA DR. MAHOPAC, NY 10541        |
| 202    | 86.8  | 2     | 32.2 | 29 DAHLIA DR. MAHOPAC, NY 10541        | THOMAS DAZI                         | 29 DAHLIA DR. MAHOPAC, NY 10541        |
| 203    | 86.8  | 2     | 32.3 | 30 DAHLIA DR. MAHOPAC, NY 10541        | JOHN GRASSIA                        | 30 DAHLIA DR. MAHOPAC, NY 10541        |
| 204    | 86.8  | 2     | 32.4 | 156 UNION VALLEY RD. MAHOPAC, NY 10541 | DANIEL HORTON                       | 156 UNION VALLEY RD. MAHOPAC, NY 10541 |
| 205    | 86.8  | 2     | 32.5 | 158 UNION VALLEY RD. MAHOPAC, NY 10541 | CHANDRA PRASAD                      | 158 UNION VALLEY RD. MAHOPAC, NY 10541 |
| 206    | 86.8  | 2     | 39   | 48 DAHLIA DR. MAHOPAC, NY 10541        | ERIK BAKKEN ALAYEN A BAKKEN         | 48 DAHLIA DR. MAHOPAC, NY 10541        |
| 207    | 86.8  | 2     | 40   | 44 DAHLIA DR. MAHOPAC, NY 10541        | ARTHUR K HANRATTY ANN M HANRATTY    | 44 DAHLIA DR. MAHOPAC, NY 10541        |
| 208    | 86.8  | 2     | 41   | 40 DAHLIA DR. MAHOPAC, NY 10541        | RAYMOND MARZIANO                    | 40 DAHLIA DR. MAHOPAC, NY 10541        |
| 209    | 86.8  | 2     | 42   | 32 DAHLIA DR. MAHOPAC, NY 10541        | MCGLYNN FAMILY TRUST                | 32 DAHLIA DR. MAHOPAC, NY 10541        |
| 210    | 86.8  | 2     | 43   | 173 UNION VALLEY RD. MAHOPAC, NY 10541 | DAVID W. EST. PARENT                | PO BOX 396, MAHOPAC, NY 10541          |
| 211    | 86.8  | 2     | 44   | 163 UNION VALLEY RD. MAHOPAC, NY 10541 | JAMES RISPOLI                       | 163 UNION VALLEY RD. MAHOPAC, NY 10541 |
| 212    | 86.8  | 2     | 45   | 159 UNION VALLEY RD. MAHOPAC, NY 10541 | ELIZABETH SALVESSEN                 | 159 UNION VALLEY RD. MAHOPAC, NY 10541 |
| 213    | 86.8  | 2     | 46   | 155 UNION VALLEY RD. MAHOPAC, NY 10541 | THOMAS MAFFUCCI                     | 155 UNION VALLEY RD. MAHOPAC, NY 10541 |
| 214    | 86.8  | 2     | 47   | 40 GLENEDA AVE. CARMEL, NY 10512       | COUNTY OF PUTNAM                    | 40 GLENEDA AVE. CARMEL, NY 10512       |
| 215    | 86.8  | 2     | 48   | 16 GLENACOM RD. MAHOPAC, NY 10541      | DAVID MAHOSKEY                      | 779 GLENDALE AVE. NAPLES, FL 34110     |
| 216    | 86.8  | 2     | 49   | 22 GLENACOM RD. MAHOPAC, NY 10541      | RAFAEL CLAUDIO                      | 23 GLENACOM RD. MAHOPAC, NY 10541      |
| 217    | 86.8  | 2     | 50   | 28 GLENACOM RD. MAHOPAC, NY 10541      | ERIN YOUNG                          | 29 GLENACOM RD. MAHOPAC, NY 10541      |
| 218    | 86.8  | 2     | 51   | 29 GLENACOM RD. MAHOPAC, NY 10541      | ERIN YOUNG                          | 29 GLENACOM RD. MAHOPAC, NY 10541      |
| 219    | 86.8  | 2     | 52   | 23 GLENACOM RD. MAHOPAC, NY 10541      | MONIQUE DANIELS                     | 23 GLENACOM RD. MAHOPAC, NY 10541      |
| 220    | 86.8  | 2     | 53   | 19 GLENACOM ROAD. MAHOPAC, NY 10541    | DAVID M MAHOSKEY ANTONETTE MAHOSKEY | 19 GLENACOM ROAD. MAHOPAC, NY 10541    |
| 221    | 86.8  | 2     | 86   |                                        |                                     |                                        |
| 222    | 86.8  | 2     | 56   | 11 FASSITT DR. MAHOPAC, NY 10541       | PATSY LEONE                         | 11 FASSITT DR. MAHOPAC, NY 10541       |
| 223    | 86.12 | 1     | 21   | 23 FASSIT DR. MAHOPAC, NY 10541        | ROBERT GOUVEIA                      | 23 FASSIT DR. MAHOPAC, NY 10541        |

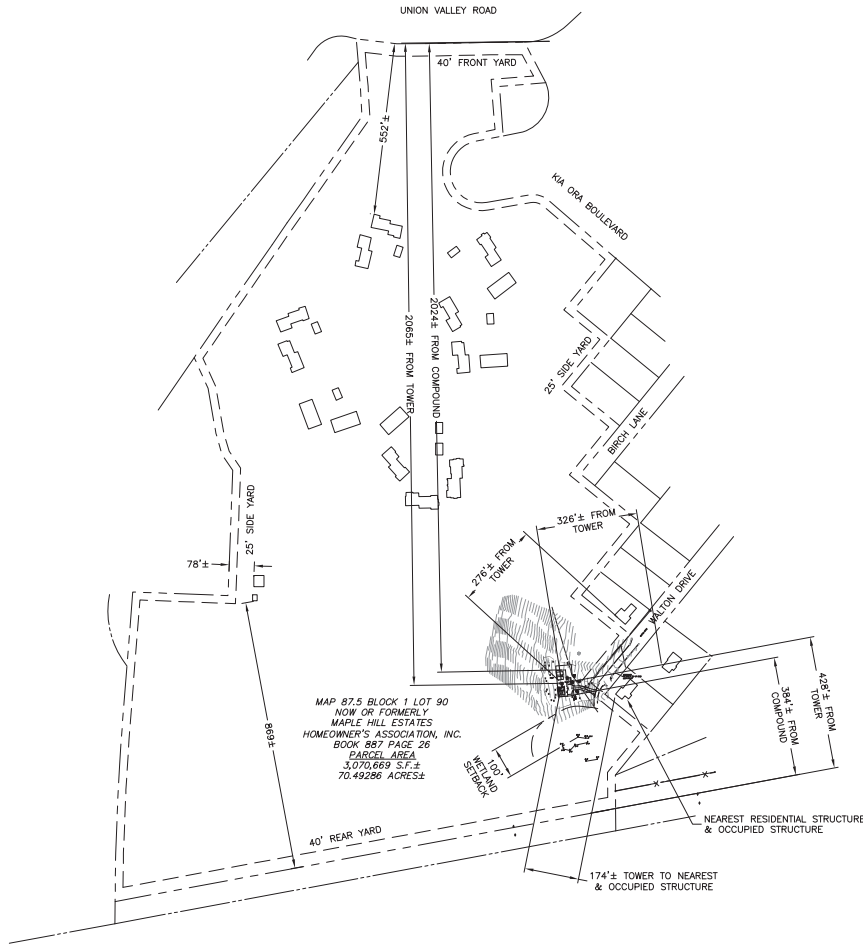
| MAP ID | MAP   | BLOCK | LOT  | PROPERTY ADDRESS                         | OWNER NAME                         | OWNER ADDRESS                            |
|--------|-------|-------|------|------------------------------------------|------------------------------------|------------------------------------------|
| 224    | 86.12 | 1     | 22   | 35 FASSITT DR. MAHOPAC, NY 10541         | VICTOR SHIRELI                     | 35 FASSITT DR. MAHOPAC, NY 10541         |
| 225    | 86.12 | 1     | 23   | 47 FASSITT DR. MAHOPAC, NY 10541         | THOMAS BAIER                       | 47 FASSITT DR. MAHOPAC, NY 10541         |
| 226    | 86.12 | 1     | 24   | 53 FASSITT DR. MAHOPAC, NY 10541         | GREGORY SC-AVELLI                  | 53 FASSITT DR. MAHOPAC, NY 10541         |
| 227    | 86.12 | 1     | 25   | 61 FASSITT DR. MAHOPAC, NY 10541         | GEORGE KOKKINAKIS                  | 61 FASSITT DR. MAHOPAC, NY 10541         |
| 228    | 86.12 | 1     | 26   | 67 FASSITT DR. MAHOPAC, NY 10541         | MARSILO LANGELLA                   | 67 FASSITT DR. MAHOPAC, NY 10541         |
| 229    | 86.12 | 1     | 28.1 | 59 CENTER RD. MAHOPAC, NY 10541          | MATTHEW ROSELEN                    | 59 CENTER RD. MAHOPAC, NY 10541          |
| 230    | 86.12 | 1     | 28.2 | 60 FASSITT DR. MAHOPAC, NY 10541         | CHRISTOPHER VENNARD                | 60 FASSITT DR. MAHOPAC, NY 10541         |
| 231    | 87.5  | 3     | 14   | UNION VALLEY RD. MAHOPAC, NY 10541       | TOWN OF CARMEL                     | 60 MCALPIN AVE. MAHOPAC, NY 10541        |
| 232    | 86.12 | 1     | 30   | 34 GLENACOM RD. MAHOPAC, NY 10541        | EMIL DONOFRIO                      | 34 GLENACOM RD. MAHOPAC, NY 10541        |
| 233    | 86.12 | 1     | 31   | 38 GLENACOM RD. MAHOPAC, NY 10541        | RALPH NARDO                        | 35 GLENACOM RD. MAHOPAC, NY 10541        |
| 234    | 86.12 | 1     | 32   | 42 GLENACOM RD. MAHOPAC, NY 10541        | CHARLENE WOOD                      | 42 GLENACOM RD. MAHOPAC, NY 10541        |
| 235    | 86.12 | 1     | 33.1 | 56 GLENACOM RD. MAHOPAC, NY 10541        | VINCENT DECICCO                    | 56 GLENACOM RD. MAHOPAC, NY 10541        |
| 236    | 86.12 | 1     | 33.2 | GLENACOM RD. MAHOPAC, NY 10541           | CHRISTOPHER DECICCO                | 56 GLENACOM RD. MAHOPAC, NY 10541        |
| 237    | 86.12 | 1     | 34   | 59 GLENACOM RD. MAHOPAC, NY 10541        | IRENE SOSA                         | 59 GLENACOM RD. MAHOPAC, NY 10541        |
| 238    | 86.12 | 1     | 35   | 71 GLENACOM RD. MAHOPAC, NY 10541        | JOHN VOUGHT                        | 71 GLENACOM RD. MAHOPAC, NY 10541        |
| 239    | 86.12 | 1     | 36   | 55 GLENACOM RD. MAHOPAC, NY 10541        | MICHAEL DAVIS                      | 55 GLENACOM RD. MAHOPAC, NY 10541        |
| 240    | 86.12 | 1     | 37   | 53 GLENACOM RD. MAHOPAC, NY 10541        | DEIRDRE FOLEY                      | 53 GLENACOM RD. MAHOPAC, NY 10541        |
| 241    | 86.12 | 1     | 39   | 47 GLENACOM RD. MAHOPAC, NY 10541        | CHRISTINE PERI                     | 47 GLENACOM RD. MAHOPAC, NY 10541        |
| 242    | 86.12 | 1     | 41   | 41 GLENACOM RD. MAHOPAC, NY 10541        | CODY LECLAIRE                      | 41 GLENACOM RD. MAHOPAC, NY 10541        |
| 243    | 86.12 | 1     | 42   | 35 GLENACOM RD. MAHOPAC, NY 10541        | RALPH NARDO                        | 35 GLENACOM RD. MAHOPAC, NY 10541        |
| 244    | 75.2  | 1     | 18   | 51 DAHLIA DR. MAHOPAC, NY 10541          | JAMES PACIULO ROSE PACIULO         | 51 DAHLIA DR. MAHOPAC, NY 10541          |
| 245    | 75.2  | 1     | 19   | 57 DAHLIA DR. MAHOPAC, NY 10541          | RAYMOND A KOLKMANN JON APPELBERGER | 57 DAHLIA DR. MAHOPAC, NY 10541          |
| 246    | 75.2  | 1     | 30   | 74 DAHLIA DR. MAHOPAC, NY 10541          | PATRICK TARPET CATHERINE TARPET    | 74 DAHLIA DR. MAHOPAC, NY 10541          |
| 247    | 75.2  | 1     | 31   | 68 DAHLIA DR. MAHOPAC, NY 10541          | JOSEPH KIRINIC DEBORAH KIRINIC     | 68 DAHLIA DR. MAHOPAC, NY 10541          |
| 248    | 75.2  | 1     | 32   | 64 DAHLIA DR. MAHOPAC, NY 10541          | JACK SCHIAVONE DIANE KLINGLER      | 64 DAHLIA DR. MAHOPAC, NY 10541          |
| 249    | 75.2  | 1     | 33   | 60 DAHLIA DR. MAHOPAC, NY 10541          | ROBERT KNAPP                       | 60 DAHLIA DR. MAHOPAC, NY 10541          |
| 250    | 75.2  | 1     | 34   | 54 DAHLIA DR. MAHOPAC, NY 10541          | PAT COLABELLO SHARON COLABELLO     | 54 DAHLIA DR. MAHOPAC, NY 10541          |
| 251    | 76.17 | 1     | 1    | 21 TEAKETTLE SPOUT RD. MAHOPAC, NY 10541 | FRANK KIERNAN                      | 10 FRANCES KIERNAN WAY, CARMEL, NY 10512 |
| 252    | 76.17 | 1     | 2    | 23 TEAKETTLE SPOUT RD. MAHOPAC, NY 10541 | RUSSELL BRAUN                      | 23 TEAKETTLE SPOUT RD. MAHOPAC, NY 10541 |
| 253    | 76.17 | 1     | 3    | 25 TEAKETTLE SPOUT RD. MAHOPAC, NY 10541 | GERALD MCGUIRE                     | 25 TEAKETTLE SPOUT RD. MAHOPAC, NY 10541 |
| 254    | 76.17 | 1     | 4    | 31 TEAKETTLE SPOUT RD. MAHOPAC, NY 10541 | DENNIS BRADY                       | 31 TEAKETTLE SPOUT RD. MAHOPAC, NY 10541 |
| 255    | 76.17 | 1     | 5    | 35 TEAKETTLE SPOUT RD. MAHOPAC, NY 10541 | PETER ERICKSON                     | 35 TEAKETTLE SPOUT RD. MAHOPAC, NY 10541 |
| 256    | 76.17 | 1     | 6    | 27 TEAKETTLE SPT RD. MAHOPAC, NY 10541   | AUGUSTUS PEREZ                     | 27 TEAKETTLE SPT RD. MAHOPAC, NY 10541   |
| 257    | 87.5  | 3     | 15   | 237 UNION VALLEY RD. MAHOPAC, NY 10541   | TOWN OF CARMEL                     | 60 MCALPIN AVE. MAHOPAC, NY 10541        |
| 258    | 76.17 | 1     | 28   | 200 UNION VALLEY RD. MAHOPAC, NY 10541   | PARENT ESTATE                      | PO BOX 396, MAHOPAC, NY 10541            |
|        |       |       |      |                                          |                                    |                                          |

TOWN OF SOMERS - WESTCHESTER COUNTY

| MAP ID | MAP  | BLOCK | LOT  | PROPERTY ADDRESS                  | OWNER NAME                                  | OWNER ADDRESS                                 |
|--------|------|-------|------|-----------------------------------|---------------------------------------------|-----------------------------------------------|
| 1      | 5.18 | 1     | 3.1  | 50 LOOMIS DR, MAHOPAC, NY 10541   | BEAVER BROOK/SOMERS ACQ LLC                 | 118 N BEDFORD ROAD                            |
| 2      | 5.18 | 1     | 4.1  | 66 TRAVIS RD, MAHOPAC, NY 10541   | BEAVER BROOK/SOMERS ACQ LLC                 | 118 N BEDFORD ROAD MT., KISCO, NY 10549       |
| 3      | 5.14 | 1     | 2    | 0 POWER LINES, MAHOPAC, NY 10541  | NYS ELECTRIC & GAS CORP                     | ONE CITY CENTER 5TH FLOOR, PORTLAND, ME 04101 |
| 4      | 5.14 | 1     | 5    | 0 POWER LINES, MAHOPAC, NY 10541  | NYS ELECTRIC & GAS CORP                     | ONE CITY CENTER 5TH FLOOR, PORTLAND, ME 04101 |
| 5      | 5.14 | 1     | 7    | 13 SYCAMORE RD, MAHOPAC, NY 10541 | TOWN OF SOMERS                              | 335 ROUTE 202, SOMERS, NY 10589               |
| 6      | 5.14 | 1     | 8    | 9 SYCAMORE RD, MAHOPAC, NY 10541  | MULTARI, NICOLA & SOPHIA                    | 9 SYCAMORE ROAD, MAHOPAC, NY 10541            |
| 7      | 5.14 | 1     | 9    | 7 SYCAMORE RD, MAHOPAC, NY 10541  | ALEXANDER, RICHARD & MARGARET               | 7 SYCAMORE ROAD, MAHOPAC, NY 10541            |
| 8      | 5.14 | 1     | 10   | 5 SYCAMORE RD, MAHOPAC, NY 10541  | CULLEN, MARTIN R & KATHLEEN                 | 5 SYCAMORE ROAD, MAHOPAC, NY 10541            |
| 9      | 5.14 | 1     | 11   | 3 SYCAMORE RD, MAHOPAC, NY 10541  | TOWN OF SOMERS                              | 335 ROUTE 202, SOMERS, NY 10589               |
| 10     | 5.14 | 1     | 12   | 1 SYCAMORE RD, MAHOPAC, NY 10541  | TOWN OF SOMERS                              | 335 ROUTE 202, SOMERS, NY 10589               |
| 11     | 5.14 | 1     | 15   | 6 TULIP RD, MAHOPAC, NY 10541     | TOWN OF SOMERS                              | 335 ROUTE 202, SOMERS, NY 10589               |
| 12     | 5.14 | 1     | 16.5 | 20 BOXWOOD DR, MAHOPAC, NY 10541  | SCHWARZE, PATRICK P, AUSAONI, ANSA KRISTINA | 20 BOXWOOD DRIVE, MAHOPAC, NY 10541           |
| 13     | 5.14 | 1     | 18   | 19 BOXWOOD DR, MAHOPAC, NY 10541  | SCHLISSMANN, DAVID & MARY                   | 18 BOXWOOD DRIVE, MAHOPAC, NY 10541           |
| 14     | 5.14 | 1     | 19   | 16 BOXWOOD DR, MAHOPAC, NY 10541  | GIBSON, JONATHAN & YAMILY                   | 19 ACACIA DRIVE, MAHOPAC, NY 10541            |
| 15     | 5.14 | 1     | 20   | 2 TULIP RD, MAHOPAC, NY 10541     | RUCKERT, EDWARD                             | 28 EAST WHIPPOORWILL ROAD, ARMONK, NY 10504   |
| 16     | 5.14 | 1     | 21   | 17 ACACIA DR, MAHOPAC, NY 10541   | GIBSON, JONATHAN & YAMILY                   | 19 ACACIA DRIVE, MAHOPAC, NY 10541            |
| 17     | 5.14 | 1     | 22   | 19 ACACIA DR, MAHOPAC, NY 10541   | GIBSON, JONATHAN & YAMILY                   | 19 ACACIA DRIVE, MAHOPAC, NY 10541            |
| 18     | 5.14 | 1     | 23   | 23 ACACIA DR, MAHOPAC, NY 10541   | MARTIN, MANUEL & MANTARING, CECILLE M       | 23 ACACIA DRIVE, MAHOPAC, NY 10541            |
| 19     | 5.14 | 1     | 24.5 | 16 ACACIA DR, MAHOPAC, NY 10541   | SALERNO, PAUL & STEPHANIE                   | 16 ACACIA DRIVE, MAHOPAC, NY 10541            |
| 20     | 5.14 | 1     | 26   | 3 RAMBLER RD, MAHOPAC, NY 10541   | MC GUIRE, ANNE M.                           | 3 RAMBLER ROAD, MAHOPAC, NY 10541             |
| 21     | 5.14 | 1     | 27   | 5 RAMBLER RD, MAHOPAC, NY 10541   | SALVATI, RICHARD & MADLEINE                 | P.O. BOX 17 LINCOLNDALE, NY 10540             |
| 22     | 5.14 | 1     | 28   | 7 RAMBLER RD, MAHOPAC, NY 10541   | SHRES, ANDREW & STACY K.                    | 7 RAMBLER RD, MAHOPAC, NY 10541               |
| 23     | 5.14 | 1     | 29   | 6 RAMBLER RD, MAHOPAC, NY 10541   | DONOVAN, MICHAEL & SHERRI                   | P.O. BOX 442 LINCOLNDALE, NY 10540            |
| 24     | 5.14 | 1     | 30   | 12 ACACIA DR, MAHOPAC, NY 10541   | DONOVAN, MICHAEL P                          | P.O. BOX 440 LINCOLNDALE, NY 10540            |
| 25     | 5.14 | 1     | 31   | 10 ACACIA DR, MAHOPAC, NY 10541   | MC CORMACK, JULIA A MC CORMACK,             | P.O. BOX 153 LINCOLNDALE, NY 10540            |
| 26     | 5.14 | 1     | 32   | 8 ACACIA DR, MAHOPAC, NY 10541    | FAWCETT, RICHARD J. (JR.) NICOLE            | 8 ACACIA ROAD, MAHOPAC, NY 10541              |
| 27     | 5.14 | 1     | 33   | 1 PEACH RD, MAHOPAC, NY 10541     | TOWN OF SOMERS                              | 335 ROUTE 202, SOMERS, NY 10589               |
| 28     | 5.14 | 1     | 34   | 3 PEACH RD, MAHOPAC, NY 10541     | TOGMA, THOMAS J. (JR) & BARBARA A.          | PO BOX 341, LINCOLNDALE, NY 10540             |
| 29     | 5.14 | 1     | 35   | 5 PEACH RD, MAHOPAC, NY 10541     | DURAN, DONTAE J. & EMMA J.                  | 5 PEACH RD, MAHOPAC, NY 10541                 |
| 30     | 5.14 | 1     | 36   | 7 PEACH RD, MAHOPAC, NY 10541     | CHEYSVIN, BORIS & JULIA                     | 7 PEACH ROAD, MAHOPAC, NY 10541               |
| 31     | 5.14 | 1     | 37   | 9 PEACH RD, MAHOPAC, NY 10541     | CHEYSVIN, BORIS & JULIA                     | 7 PEACH ROAD, MAHOPAC, NY 10541               |
| 32     | 5.14 | 1     | 38   | 8 RAMBLER RD, MAHOPAC, NY 10541   | KOEBINKEN, STEVEN & SHANNON                 | 8 RAMBLER RD, MAHOPAC, NY 10541               |
| 33     | 5.14 | 1     | 39   | 8 QUEEN RD, MAHOPAC, NY 10541     | CHEYSVIN, BORIS & JULIA                     | 7 PEACH ROAD, MAHOPAC, NY 10541               |
| 34     | 5.14 | 1     | 40   | 104 TRAVIS RD, MAHOPAC, NY 10541  | MC CULLOUGH, JOHN & WENDY                   | 104 TRAVIS ROAD BALDWIN PLACE, NY 10505       |
| 35     | 5.14 | 1     | 41   | 102 TRAVIS RD, MAHOPAC, NY 10541  | FURICA, CHRIS & CHRISTINE                   | 102 TRAVIS ROAD BALDWIN PLACE, NY 10505       |
| 36     | 5.14 | 1     | 42   | 100 TRAVIS RD, MAHOPAC, NY 10541  | CHORNY, DENNIS T. & OKSANA                  | 100 TRAVIS ROAD BALDWIN PLACE, NY 10505       |
| 37     | 5.15 | 1     | 1    | 13 ACACIA DR, MAHOPAC, NY 10541   | TOWN OF SOMERS                              | 335 ROUTE 202, SOMERS, NY 10589               |
| 38     | 5.15 | 1     | 2    | 11 ACACIA DR, MAHOPAC, NY 10541   | MASTRANTONI, PAUL & THOMASINE               | 10 BOXWOOD DRIVE, MAHOPAC, NY 10541           |
| 39     | 5.15 | 1     | 3    | 9 ACACIA DR, MAHOPAC, NY 10541    | TOWN OF SOMERS                              | 335 ROUTE 202, SOMERS, NY 10589               |
| 40     | 5.15 | 1     | 4    | 7 ACACIA DR, MAHOPAC, NY 10541    | TOLEDO, CLAUDIA                             | 7 ACACIA DRIVE, MAHOPAC, NY 10541             |
| 41     | 5.15 | 1     | 5    | 5 ACACIA DR, MAHOPAC, NY 10541    | TOWN OF SOMERS                              | 335 ROUTE 202, SOMERS, NY 10589               |
| 42     | 5.15 | 1     | 7.1  | 3 ACACIA DR, MAHOPAC, NY 10541    | WILLIAM D & ANN C FITZGERALD                | 63 ARBOR LN, DIX HILLS, NY 11746              |
| 43     | 5.15 | 1     | 8    | 0 ACACIA DR, MAHOPAC, NY 10541    | MICHAEL J JR & TAMMY REPP                   | 2 BOXWOOD DR, MAHOPAC, NY 10541               |
| 44     | 5.15 | 1     | 9    | 0 ACACIA DR, MAHOPAC, NY 10541    | MICHAEL J JR & TAMMY REPP                   | 2 BOXWOOD DR, MAHOPAC, NY 10541               |
| 45     | 5.15 | 1     | 10   | 2 BOXWOOD DR, MAHOPAC, NY 10541   | MICHAEL J JR & TAMMY REPP                   | 2 BOXWOOD DR, MAHOPAC, NY 10541               |
| 46     | 5.15 | 1     | 11   | 4 BOXWOOD DR, MAHOPAC, NY 10541   | MONTY & KAREN DOMAN                         | 745 WARREN ST, SOMERS, NY 10589               |
| 47     | 5.15 | 1     | 12   | 6 BOXWOOD DR, MAHOPAC, NY 10541   | JUDY A, DONALD D & BRUCE A RATH             | 6 BOXWOOD DR, MAHOPAC, NY 10541               |

| MAP ID | MAP  | BLOCK | LOT  | PROPERTY ADDRESS                    | OWNER NAME                                                      | OWNER ADDRESS                                    |
|--------|------|-------|------|-------------------------------------|-----------------------------------------------------------------|--------------------------------------------------|
| 48     | 5.15 | 1     | 13   | 8 BOXWOOD DR, MAHOPAC, NY 10541     | TOWN OF SOMERS                                                  | 335 ROUTE 202, SOMERS, NY 10589                  |
| 49     | 5.15 | 1     | 14   | 8 BOXWOOD DR, MAHOPAC, NY 10541     | TOWN OF SOMERS                                                  | 335 ROUTE 202, SOMERS, NY 10589                  |
| 50     | 5.15 | 1     | 15   | 10 BOXWOOD DR, MAHOPAC, NY 10541    | PAUL THOMASINE MASTRANTONI                                      | 10 BOXWOOD DRIVE, MAHOPAC, NY 10541              |
| 51     | 5.15 | 1     | 16   | 12 BOXWOOD DR, MAHOPAC, NY 10541    | PATRICIA A FOLEY                                                | PO BOX 245, 12 BOXWOOD DR, LINCOLNDALE, NY 10541 |
| 52     | 5.15 | 1     | 17.5 | 11 BOXWOOD DR, MAHOPAC, NY 10541    | ROBERT & ANNE MARIE DE CRENZIA                                  | 11 BOXWOOD DRIVE, MAHOPAC, NY 10541              |
| 53     | 5.15 | 1     | 19   | 7 BOXWOOD DR, MAHOPAC, NY 10541     | THOMAS SCHNEIDER FAMILY TRUST                                   | 108 LONGDALE DR, MAHOPAC, NY 10541               |
| 54     | 5.15 | 1     | 20   | 5 BOXWOOD DR, MAHOPAC, NY 10541     | KEVIN & CAROLYN MOSS                                            | PO BOX 74, LINCOLNDALE, NY 10541                 |
| 55     | 5.15 | 1     | 21   | 3 BOXWOOD DR, MAHOPAC, NY 10541     | KEVIN & CAROLYN MOSS                                            | PO BOX 74, LINCOLNDALE, NY 10541                 |
| 56     | 5.15 | 1     | 22   | 11 OLIVE DR, MAHOPAC, NY 10541      | MICHAEL & ELIZABETH ALLEN                                       | 11 OLIVE DR, MAHOPAC, NY 10541                   |
| 57     | 5.15 | 1     | 18   | 10 COTTONWOOD DR, MAHOPAC, NY 10541 | STEVE & DEBORAH PILLA                                           | PO BOX 73, LINCOLNDALE, NY 10541                 |
| 59     | 5.15 | 1     | 65.5 | 16 OLIVE DR, MAHOPAC, NY 10541      | PAUL & AMY ESKRIDGE                                             | 16 OLIVE DR, MAHOPAC, NY 10541                   |
| 60     | 5.15 | 1     | 67   | 18 OLIVE DR, MAHOPAC, NY 10541      | ROBERT & CHERYL BOUZA                                           | PO BOX 519, LINCOLNDALE, NY 10541                |
| 61     | 5.15 | 1     | 68   | 18 OLIVE DR, MAHOPAC, NY 10541      | ROBERT & CHERYL BOUZA                                           | PO BOX 519, LINCOLNDALE, NY 10541                |
| 62     | 5.15 | 1     | 69   | 18 OLIVE DR, MAHOPAC, NY 10541      | ROBERT & CHERYL BOUZA                                           | PO BOX 519, LINCOLNDALE, NY 10541                |
| 63     | 5.15 | 1     | 70   | 20 OLIVE DR, MAHOPAC, NY 10541      | ROBERT & CHERYL BOUZA                                           | PO BOX 519, LINCOLNDALE, NY 10541                |
| 64     | 5.15 | 1     | 71   | 25 NARCISSEUS DR, MAHOPAC, NY 10541 | SEYMOUR WEINSTEIN                                               | PO BOX 32, LINCOLNDALE, NY 10541                 |
| 65     | 5.15 | 1     | 72   | 23 NARCISSEUS DR, MAHOPAC, NY 10541 | SEYMOUR WEINSTEIN                                               | PO BOX 32, LINCOLNDALE, NY 10541                 |
| 66     | 5.15 | 1     | 73   | 21 NARCISSEUS DR, MAHOPAC, NY 10541 | ROBERT & CHERYL FAUZA                                           | PO BOX 519, LINCOLNDALE, NY 10541                |
| 67     | 5.15 | 1     | 74   | 19 NARCISSEUS DR, MAHOPAC, NY 10541 | EVELYN PFAFFENBACH                                              | 19 NARCISSEUS DR, MAHOPAC, NY 10541              |
| 68     | 5.15 | 1     | 76   | 24 OLIVE DR, MAHOPAC, NY 10541      | BRAD & LISA ROBERTS                                             | 24 OLIVE DR, MAHOPAC, NY 10541                   |
| 69     | 5.15 | 1     | 77   | 26 OLIVE DR, MAHOPAC, NY 10541      | DEFLIPPIS FAMILY TRUST 2013 TRUST, MICHAEL DEFLIPPIS AS TRUSTEE | 83 MORTON BLVD, PLAINVIEW, NY 11803              |
| 70     | 5.15 | 1     | 78   | 26 OLIVE DR, MAHOPAC, NY 10541      | DEFLIPPIS FAMILY TRUST 2013 TRUST, MICHAEL DEFLIPPIS AS TRUSTEE | 83 MORTON BLVD, PLAINVIEW, NY 11803              |
| 71     | 5.15 | 1     | 79   | 28 OLIVE DR, MAHOPAC, NY 10541      | TOWN OF SOMERS                                                  | 335 ROUTE 202, SOMERS, NY 10589                  |
| 72     | 5.15 | 1     | 80   | 30 OLIVE DR, MAHOPAC, NY 10541      | TOWN OF SOMERS                                                  | 335 ROUTE 202, SOMERS, NY 10589                  |
| 73     | 5.15 | 1     | 85   | 4 PEACH RD, MAHOPAC, NY 10541       | CIVITA, LYNNE                                                   | 4 PEACH RD, MAHOPAC, NY 10541                    |
| 78     | 5.15 | 1     | 86   | 8 PEACH RD, MAHOPAC, NY 10541       | SKORLIE, CHARLES F & FELICE                                     | 8 PEACH ROAD, MAHOPAC, NY 10541                  |
| 79     | 5.15 | 1     | 87   | 0 PEACH RD, MAHOPAC, NY 10541       | SMITH, DAVID E. & DORIS JANE                                    | 18 PONDER LN, DEER PARK, NY 11729                |
| 80     | 5.15 | 1     | 88   | 10 PEACH RD, MAHOPAC, NY 10541      | CLERICO, ALFRED J                                               | PO BOX 147, LINCOLNDALE, N. Y., 10540            |
| 81     | 5.15 | 1     | 89   | 12 PEACH RD, MAHOPAC, NY 10541      | SMITH, DAVID & DORIS J                                          | P. O. BOX 147 LINCOLNDALE, N. Y., 10540          |
| 82     | 5.15 | 1     | 90   | 19 OLIVE DR, MAHOPAC, NY 10541      | PUTNAM/WESTCHESTER BUILDERS, INC.                               | 361 ROUTE 4, MAHOPAC, NY 10541                   |
| 83     | 5.15 | 1     | 91   | 2 ACACIA DR, MAHOPAC, NY 10541      | MARLENE FERRELL                                                 | 2 ACACIA DR, MAHOPAC, NY 10541                   |
| 84     | 5.15 | 2     | 1    | 6 FERN RD, MAHOPAC, NY 10541        | STEVEN & LAURAL WINES                                           | 6 FERN RD, MAHOPAC, NY 10541                     |
| 85     | 5.15 | 2     | 2    | 4 FERN RD, MAHOPAC, NY 10541        | VICTOR K III & JOANNE M BOVD                                    | PO BOX 255, LINCOLNDALE, NY 10541                |
| 86     | 5.15 | 2     | 3    | 2 FERN RD, MAHOPAC, NY 10541        | ERNEST LUCY SANTANELLO (TRUST)                                  | 426 STRATFORD DR, NEW PORT RICHEL, FL 34652      |
| 87     | 5.15 | 2     | 4    | 34 NARCISSEUS DR, MAHOPAC, NY 10541 | MICHAEL J COOGAN & MARIE S RICE                                 | PO BOX 429, SOMERS, NY 10589                     |
| 88     | 5.15 | 2     | 5    | 32 NARCISSEUS DR, MAHOPAC, NY 10541 | LINDA IRENE SCHERIFF                                            | 32 NARCISSEUS DR, MAHOPAC, NY 10541              |
| 89     | 5.15 | 2     | 6    | 32 NARCISSEUS DR, MAHOPAC, NY 10541 | LINDA IRENE SCHERIFF                                            | 32 NARCISSEUS DR, MAHOPAC, NY 10541              |
| 90     | 5.15 | 2     | 7    | 32 NARCISSEUS DR, MAHOPAC, NY 10541 | LINDA IRENE SCHERIFF                                            | 32 NARCISSEUS DR, MAHOPAC, NY 10541              |
| 91     | 5.15 | 2     | 8    | 28 NARCISSEUS DR, MAHOPAC, NY 10541 | MICHAEL PFAFFENBACH                                             | 28 NARCISSEUS DR, MAHOPAC, NY 10541              |
| 92     | 5.15 | 2     | 9    | 26 NARCISSEUS DR, MAHOPAC, NY 10541 | JAVIER ROBLES                                                   | PO BOX 304, LINCOLNDALE, NY 10540                |
| 93     | 5.15 | 2     | 10   | 24 NARCISSEUS DR, MAHOPAC, NY 10541 | TOWN OF SOMERS                                                  | 335 ROUTE 220, SOMERS, NY 10589                  |
| 94     | 5.15 | 2     | 11   | 0 NARCISSEUS DR, MAHOPAC, NY 10541  | TOWN OF SOMERS                                                  | 335 ROUTE 220, SOMERS, NY 10589                  |
| 95     | 5.15 | 2     | 12   | 22 NARCISSEUS DR, MAHOPAC, NY 10541 | JOSE & MARIA CABRERA                                            | 22 NARCISSEUS DR, MAHOPAC, NY 10541              |
| 96     | 5.15 | 2     | 13   | 20 GREENWOOD DR, MAHOPAC, NY 10541  | MICHAEL & THERESE DRISCOLL                                      | PO BOX 58, LINCOLNDALE, NY 10540                 |
| 97     | 5.15 | 2     | 14   | 14 GREENWOOD DR, MAHOPAC, NY 10541  | ELIZABETH KELLY                                                 | PO BOX 275, LINCOLNDALE, NY 10540                |
| 98     | 5.15 | 2     | 15   | 16 GREENWOOD DR, MAHOPAC, NY 10541  | ADNAN & SELVET ASLLANI                                          | 16 GREENWOOD DR, MAHOPAC, NY 10541               |

| MAP ID | MAP  | BLOCK | LOT  | PROPERTY ADDRESS                  | OWNER NAME                                                | OWNER ADDRESS                                |
|--------|------|-------|------|-----------------------------------|-----------------------------------------------------------|----------------------------------------------|
| 99     | 5.15 | 2     | 16   | 3 MAGNOLIA DR, MAHOPAC, NY 10541  | JOHN PAUL J & JOAN M KAMENSKI                             | 3 MAGNOLIA DR, MAHOPAC, NY 10541             |
| 100    | 5.15 | 2     | 17   | 5 MAGNOLIA DR, MAHOPAC, NY 10541  | KEVIN HARRIGAN & JOHN R JR                                | 5 MAGNOLIA DR, MAHOPAC, NY 10541             |
| 101    | 5.15 | 2     | 18   | 7 MAGNOLIA DR, MAHOPAC, NY 10541  | YAROSLAV & OLGA ROMANKY                                   | 7 MAGNOLIA DR, MAHOPAC, NY 10541             |
| 102    | 5.15 | 2     | 19   | 9 MAGNOLIA DR, MAHOPAC, NY 10541  | JAMES & PATRICIA WHITE                                    | 9 MAGNOLIA DR, MAHOPAC, NY 10541             |
| 103    | 5.15 | 2     | 20   | 11 MAGNOLIA DR, MAHOPAC, NY 10541 | NICOLAS & ELIZABETH BORDIGA                               | PO BOX 329, LINCOLNDALE, NY 10540            |
| 104    | 5.15 | 2     | 21   | 13 MAGNOLIA DR, MAHOPAC, NY 10541 | NICOLAS & ELIZABETH BORDIGA                               | PO BOX 329, LINCOLNDALE, NY 10540            |
| 105    | 5.15 | 2     | 22   | 11 FERN RD, MAHOPAC, NY 10541     | LINDA IRENE SCHERIFF                                      | 32 NARCISSEUS DR, MAHOPAC, NY 10541          |
| 106    | 5.15 | 2     | 23   | 7 FERN RD, MAHOPAC, NY 10541      | MICHAEL J & KRISTIE A EVERS                               | 7 FERN RD, MAHOPAC, NY 10541                 |
| 107    | 5.15 | 2     | 24   | 6 MAGNOLIA DR, MAHOPAC, NY 10541  | JAMES B & CAROLANN WILSON                                 | PO BOX 425, LINCOLNDALE, NY 10540            |
| 108    | 5.15 | 2     | 27   | 13 LOCUST DR, MAHOPAC, NY 10541   | CATHERINE BUTTERWORTH ET AL                               | 68 CHURCH ST, TEANECK, NY 10766              |
| 109    | 5.15 | 2     | 28   | 15 LOCUST DR, MAHOPAC, NY 10541   | CHRISTOPHER L MERWIN                                      | 18 LOCUST DR, MAHOPAC, NY 10541              |
| 110    | 5.15 | 2     | 29   | 17 LOCUST DR, MAHOPAC, NY 10541   | JAMES B & CAROLANN WILSON                                 | PO BOX 425, LINCOLNDALE, NY 10540            |
| 111    | 5.15 | 2     | 30   | 19 LOCUST DR, MAHOPAC, NY 10541   | JOHN & JOHANNE YURSA                                      | PO BOX 222, LINCOLNDALE, NY 10540            |
| 112    | 5.15 | 2     | 31   | 0 LOCUST DR, MAHOPAC, NY 10541    | TOWN OF SOMERS                                            | 335 ROUTE 202, SOMERS, NY 10589              |
| 113    | 5.15 | 2     | 32.1 | 21 LOCUST DR, MAHOPAC, NY 10541   | ANTHONY & PAMELA BEADLE                                   | 21 LOCUST DR, MAHOPAC, NY 10541              |
| 114    | 5.15 | 2     | 34   | 1 FERN RD, MAHOPAC, NY 10541      | JOHN & JOHANNE YURSA                                      | PO BOX 222, LINCOLNDALE, NY 10540            |
| 115    | 5.15 | 2     | 35   | 5 FERN RD, MAHOPAC, NY 10541      | JOSEPH MCCARTHY & CATHERINE F ANDREOLI, CO-BRIAN ANDREOLI | 15 FRESCENUS RD, WESTPORT, CT 06880          |
| 116    | 5.15 | 2     | 36   | 5 FERN RD, MAHOPAC, NY 10541      | JOSEPH MCCARTHY & CATHERINE F ANDREOLI, CO-BRIAN ANDREOLI | 15 FRESCENUS RD, WESTPORT, CT 06880          |
| 117    | 5.15 | 2     | 37   | 7 FERN RD, MAHOPAC, NY 10541      | MICHAEL J & KRISTIE A EVERS                               | 7 FERN RD, MAHOPAC, NY 10541                 |
| 118    | 5.15 | 2     | 38   | 26 LOCUST DR, MAHOPAC, NY 10541   | ERNEST LUCY SANTANELLO (TRUST)                            | 4136 STRATFORD DR, NEW PORT RICHEL, FL 34652 |
| 119    | 5.15 |       |      |                                   |                                                           |                                              |



**SITE PLAN**

SCALE: 1"=400' FOR 11"x17"

1"=200' FOR 22"x34"



**ZONING TABLE:  
CARMEL ZONING DISTRICT RESIDENTIAL**

| ITEM                         | REQUIRED | EXISTING   | PROPOSED  | REMARKS  |
|------------------------------|----------|------------|-----------|----------|
| MAX. HEIGHT (FT)             | 35       | 30±        | NO CHANGE | COMPLIES |
| MIN. LOT AREA (SF)           | 120,000  | 3,070,669± | NO CHANGE | COMPLIES |
| MIN. LOT WIDTH (FT)          | 200      | 448±       | NO CHANGE | COMPLIES |
| MIN. LOT DEPTH (FT)          | 200      | 2,562±     | NO CHANGE | COMPLIES |
| MIN. FRONT YARD SETBACK (FT) | 40       | 552±       | NO CHANGE | COMPLIES |
| MIN. SIDE YARD SETBACK (FT)  | 25       | 78±        | NO CHANGE | COMPLIES |
| MIN. REAR YARD SETBACK (FT)  | 40       | 384±       | NO CHANGE | COMPLIES |
| MAX. BUILDING COVERAGE       | 15%      | 2.4%       | NO CHANGE | COMPLIES |
| TOWER SETBACK (FT) **        | 280      | N/A        | 174±      | ***      |
| TOWER HEIGHT (FT) ***        | 75       | N/A        | 140       | ***      |

NA = NOT APPLICABLE

\* EXISTING DIMENSIONAL NON-CONFORMITY.

\*\* IN RESIDENTIAL ZONES, TOWER SETBACK TO ALL RESIDENTIAL BUILDINGS ON ADJUTING LOTS MUST BE 2 TIMES THE HEIGHT OF PROPOSED TOWER.

\*\*\* VARIANCE REQUIRED

**NOTES:**

- NORTH SHOWN AS APPROXIMATE.
- SOME EXISTING AND PROPOSED INFORMATION NOT SHOWN FOR CLARITY.
- THE PROPOSED USE IS FOR TELECOMMUNICATIONS AND IS NOT INTENDED FOR PERMANENT EMPLOYEE OCCUPANCY. THEREFORE, POTABLE WATER, SANITARY SEWERS, AND ADDITIONAL ON SITE PARKING ARE NOT REQUIRED.
- THE FACILITY SHALL BE VISITED ON THE AVERAGE OF ONCE A MONTH FOR MAINTENANCE AND SHALL BE CONTINUOUSLY MONITORED FROM A REMOTE FACILITY FOR BOTH FIRE AND INTRUSION.
- THE FACILITIES ARE REMOTELY OPERATED AND CONTROLLED, AND AS SUCH, ARE NORMALLY UNMANNED. A COMPUTERIZED EQUIPMENT AND FACILITY ALARM SYSTEM CONTINUOUSLY MONITORS AN EXTENSIVE NUMBER OF OPERATING AND BUILDING FUNCTIONS. UNPLANNED EVENTS WILL TRIGGER ALARM REPORTS TO VERIZON WIRELESS HEADQUARTERS LOCATION IN BEDMINSTER, NJ, RANGING FROM ROUTINE REPORTS TO IMMEDIATE ACTIVATION OF LOCAL PERSONNEL OR EMERGENCY SERVICES, 24 HOURS A DAY.
- CONTRACTOR SHALL CONTACT "DIG SAFELY NEW YORK @ 811" AND LOCATE ALL EXISTING UTILITIES WITHIN THE AREA OF WORK PRIOR TO START OF EXCAVATION.
- CONTRACTOR SHALL COORDINATE & COMPLY WITH EXISTING UTILITY COMPANIES' REQUIREMENTS.
- THERE ARE NO PROPOSED ALTERATIONS, IMPROVEMENTS OR RELOCATIONS FOR ANY STREAMS OR EXISTING DRAINAGE STRUCTURES WITHIN THE PROPERTY.
- SITE PLAN BASED ON "B101, GLENCOMA LAKE, WALTON DRIVE, COMPILATION PLAN", SHEET 1 OF 2 & "B102, GLENACOM LAKE, WALTON DRIVE, PARTIAL BOUNDARY & TOPOGRAPHIC SURVEY", SHEET 2 OF 2, PREPARED BY LANGAN, 555 LONG WHARF DRIVE, NEW HAVEN, CT 06511. SHEET 1 OF 1, DATED APRIL 10, 2018.
- THE FACILITIES SECURITY AND OTHER LIGHTING SYSTEMS WILL BE DESIGNED, INSTALLED AND MAINTAINED IN SUCH A MANNER (THROUGH MOTION DETECTION, AUTOMATIC SHUT-OFF, PROJECTING DOWNWARD, SHIELDING, AND MINIMUM WATTAGE) AS TO MINIMIZE OR ELIMINATE LIGHT POLLUTION; THE FACILITIES WILL BE DESIGNED, INSTALLED AND MAINTAINED IN SUCH A MANNER AS TO MINIMIZE OR ELIMINATE NOISE POLLUTION.
- DISTANCES TO NEARBY STRUCTURES WERE VERIFIED BASED ON PUBLICLY AVAILABLE LOT SURVEYS FROM THE TOWN OF CARMEL; 48 WALTON DRIVE, J.F. DOWLING, 09/15/1992; 49 WALTON DRIVE, BADEY & WATSON, 04/18/1946; 53 WALTON DRIVE, BURGESS & BEHR, P.C., 02/26/1980.

HOMELAND TOWERS, LLC  
9 HARMONY STREET  
2nd FLOOR  
DANBURY, CT 06810  
(203) 297-6345

NEW YORK SMSA  
LIMITED PARTNERSHIP  
d/b/a  
**verizon**  
WIRELESS

4 CENTERCROK ROAD  
WEST NYACK, NY 10994

**GLENACOM LAKE**

**ZONING DRAWINGS**

|   |          |                   |
|---|----------|-------------------|
| 6 | 12/22/19 | ISSUED FOR ZONING |
| 5 | 12/02/22 | ISSUED FOR ZONING |
| 4 | 11/22/22 | ISSUED FOR ZONING |
| 3 | 11/04/22 | ISSUED FOR ZONING |
| 2 | 10/26/22 | ISSUED FOR ZONING |
| 1 | 05/07/20 | ISSUED FOR ZONING |
| 0 | 01/20/20 | ISSUED FOR ZONING |
| C | 01/02/20 | ISSUED FOR REVIEW |
| B | 11/07/19 | ISSUED FOR REVIEW |

Dewberry Engineers Inc.

600 PARSIPPANY ROAD  
SUITE 301  
PARSIPPANY, NJ 07054  
PHONE: 973.739.9400  
FAX: 973.739.9710



DAVID REVETTE, P.E.  
NY LICENSE No. 101758

|                 |          |
|-----------------|----------|
| DRAWN BY:       | JC/KFM   |
| REVIEWED BY:    | MS       |
| CHECKED BY:     | DER      |
| PROJECT NUMBER: | 50114387 |
| JOB NUMBER:     | 50114388 |
| SITE ADDRESS:   |          |

WALTON DRIVE  
MAHOPAC, NY 10541  
PUTNAM COUNTY

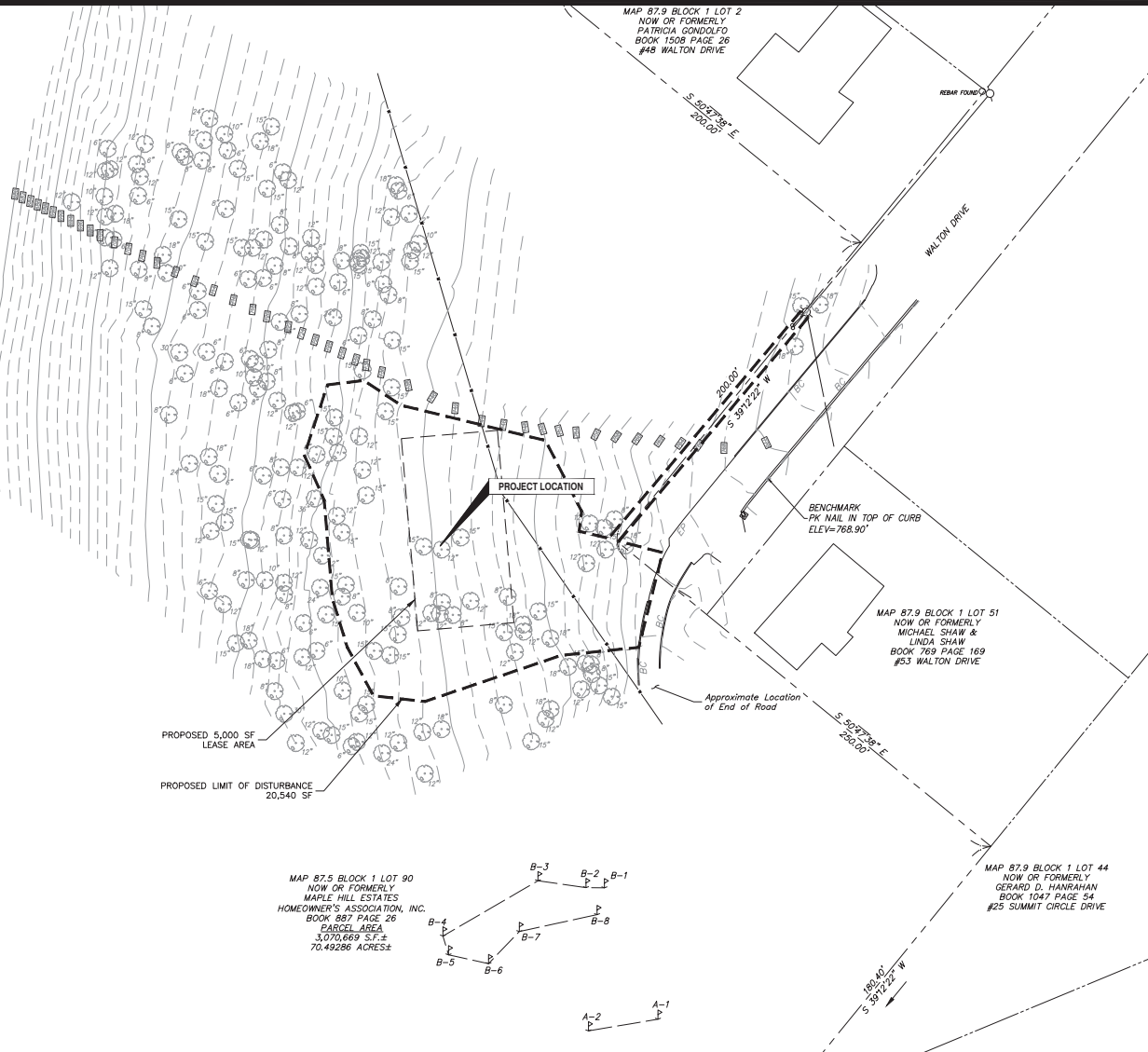
SHEET TITLE

SITE PLAN

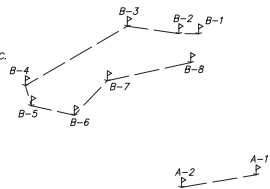
SHEET NUMBER



APPROXIMATE TRUE NORTH

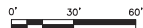


MAP 87.5 BLOCK 1 LOT 90  
NOW OR FORMERLY  
MAPLE HILL ESTATES  
HOMEOWNERS ASSOCIATION, INC.  
BOOK 887 PAGE 26  
PARCEL AREA  
3,070.669 S.F. ±  
70.49286 ACRES ±



**EXISTING CONDITIONS PLAN**

SCALE: 1"=60' FOR 11"x17"  
1"=30' FOR 22"x34"



1

**NOTES:**

- EXISTING CONDITIONS PLAN IS BASED ON A SURVEY BY LANGAN ENGINEERING DATED 04/10/18.
- THE SURVEY IS BASED UPON EXISTING PHYSICAL CONDITIONS AT THE SUBJECT SITE, DEED INFORMATION AND THE FOLLOWING REFERENCES:
  - MAP TITLED "FINAL SUBDIVISION PLAT OF MAPLE HILL ESTATES, SITUATE IN TOWN OF CARMEL, COUNTY OF PUTNAM, STATE OF NEW YORK", SCALE: 1"=100', DATED: MAY 22, 1985, PREPARED BY: CASHIN ASSOCIATES, P.C.
- THE MERIDIAN OF THIS SURVEY IS REFERENCED TO NEW YORK EAST STATE PLANE COORDINATE SYSTEM NAD 83 AS ESTABLISHED THROUGH GPS METHODS.
- ELEVATIONS SHOWN ARE REFERENCED TO NAVD 88, AS ESTABLISHED THROUGH GPS METHODS.
- PLANIMETRIC AND TOPOGRAPHIC INFORMATION SHOWN HEREON HAS BEEN OBTAINED FROM GROUND SURVEYS AND LANDSCAPE ARCHITECTURE, DPC FIELD WORK COMPLETED DURING THE MONTH OF APRIL, 2018.
- AS PER THE NATIONAL FLOOD INSURANCE PROGRAM FIRM MAP ENTITLED "PUTNAM COUNTY, NEW YORK PANEL 226 OF 256, MAP NUMBER 36079C0226E, EFFECTIVE DATE MARCH 4, 2013" THE PROJECT AREA IS IN ZONE X (UNSHADED).
- UNLESS SPECIFICALLY NOTED HEREON, STORM AND SANITARY SEWER INFORMATION (INCLUDING PIPE INVERT, PIPE MATERIAL, AND PIPE SIZE) WAS OBSERVED AND MEASURED AT FIELD LOCATED STRUCTURES (MANHOLES/CATCH BASINS, ETC) CONDITIONS CAN VARY FROM THOSE ENCOUNTERED AT THE TIMES WHEN AND LOCATIONS WHERE DATA IS OBTAINED DESPITE MEETING THE REQUIRED STANDARD OF CARE. THE SURVEYOR CANNOT, AND DOES NOT WARRANT THAT PIPE MATERIAL AND/OR PIPE SIZE THROUGHOUT THE PIPE RUN ARE THE SAME AS THOSE OBSERVED AT EACH STRUCTURE, OR THAT THE PIPE RUN IS STRAIGHT BETWEEN THE LOCATED STRUCTURES.
- ADDITIONAL UTILITY (WATER, GAS, ELECTRIC ETC.) DATA IS SHOWN FROM FIELD LOCATED SURFACE MARKINGS (BY OTHERS), EXISTING STRUCTURES, AND/OR FROM EXISTING DRAWINGS.
- UNLESS SPECIFICALLY NOTED HEREON, THE SURVEYOR HAS NOT EXCAVATED TO PHYSICALLY LOCATE THE UNDERGROUND UTILITIES. THE UTILITIES ARE EITHER IN SERVICE, ABANDONED OR SUITABLE FOR USE, NOR ARE IN THE EXACT LOCATION OR CONFIGURATION INDICATED HEREON.
- ALL BUILDINGS AND STRUCTURES WERE LOCATED AND MEASURED AT GROUND LEVEL. THE SURVEYOR MAKES NO DETERMINATIONS OR GUARANTEES AS TO THE ABSENCE, EXISTENCE OR LOCATIONS OF UNDERGROUND STRUCTURES, FOUNDATIONS, FOOTINGS, PROJECTIONS, WALLS, TANKS, SEPTIC SYSTEMS, ETC. NO TEST PITS, EXCAVATIONS OR GROUND PENETRATING RADAR WERE PERFORMED AS PART OF THIS SURVEY.
- PRIOR TO ANY DESIGN OR CONSTRUCTION, THE PROPER UTILITY AGENCIES MUST BE CONTACTED FOR VERIFICATION OF UTILITY TYPE AND FOR FIELD LOCATIONS.
- WETLANDS DELINEATED BY OTHERS.

HOMELAND TOWERS, LLC  
9 HARMONY STREET  
2nd FLOOR  
DANBURY, CT 06810  
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d/b/a  
**verizon**  
WIRELESS

4 CENTERCROK ROAD  
WEST NYACK, NY 10994

**GLENACOM LAKE**

ZONING DRAWINGS

|   |          |                   |
|---|----------|-------------------|
| 5 | 12/02/22 | ISSUED FOR ZONING |
| 4 | 11/22/22 | ISSUED FOR ZONING |
| 3 | 11/04/22 | ISSUED FOR ZONING |
| 2 | 10/26/22 | ISSUED FOR ZONING |
| 1 | 05/07/20 | ISSUED FOR ZONING |
| 0 | 01/20/20 | ISSUED FOR ZONING |
| C | 01/02/20 | ISSUED FOR REVIEW |
| B | 11/07/19 | ISSUED FOR REVIEW |
| A | 09/27/19 | ISSUED FOR REVIEW |

**Dewberry**  
Dewberry Engineers Inc.

600 PARSIPPANY ROAD  
SUITE 301  
PARSIPPANY, NJ 07054  
PHONE: 973.739.9400  
FAX: 973.739.8710

DAVID REVETTE, P.E.  
NY LICENSE No. 101758

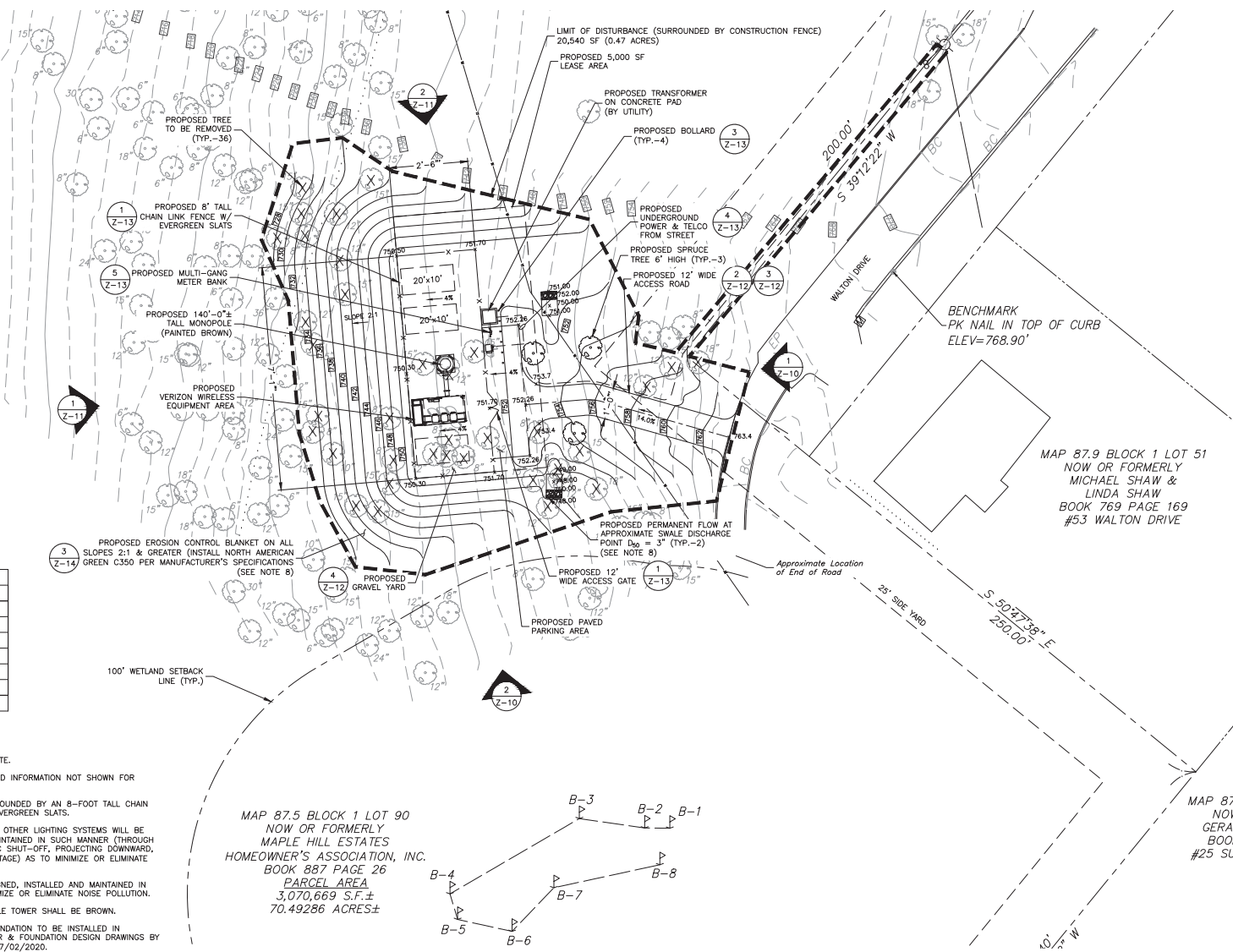
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| DRAWN BY:       | JC/KFM   |
| REVIEWED BY:    | MS       |
| CHECKED BY:     | DER      |
| PROJECT NUMBER: | 50114387 |
| JOB NUMBER:     | 50114388 |
| SITE ADDRESS:   |          |

WALTON DRIVE  
MAHOPAC, NY 10541  
PUTNAM COUNTY

SHEET TITLE  
**EXISTING CONDITIONS  
PLAN**

SHEET NUMBER

APPROXIMATE TRUE NORTH

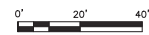


| TREES TO BE REMOVED |     |
|---------------------|-----|
| SIZE/CALIPER (IN)   | QTY |
| 6"                  | 1   |
| 8"                  | 7   |
| 10"                 | 1   |
| 12"                 | 11  |
| 15"                 | 13  |
| 18"                 | 3   |
| TOTAL               | 36  |

- NOTES:**
- NORTH SHOWN AS APPROXIMATE.
  - SOME EXISTING AND PROPOSED INFORMATION NOT SHOWN FOR CLARITY.
  - THE FACILITIES WILL BE SURROUNDED BY AN 8-FOOT TALL CHAIN LINK SECURITY FENCE WITH EVERGREEN SLATS.
  - THE FACILITIES SECURITY AND OTHER LIGHTING SYSTEMS WILL BE DESIGNED, INSTALLED AND MAINTAINED IN SUCH MANNER (THROUGH MOTION DETECTION, AUTOMATIC SHUT-OFF, PROJECTING DOWNWARD, SHIELDING, AND MINIMUM WATTAGE) AS TO MINIMIZE OR ELIMINATE LIGHT POLLUTION.
  - THE COLOR OF THE MONOPOLE TOWER SHALL BE BROWN.
  - MONOPOLE & MONOPOLE FOUNDATION TO BE INSTALLED IN ACCORDANCE WITH THE TOWER & FOUNDATION DESIGN DRAWINGS BY AMBOR STRUCTURES DATED 07/02/2020.
  - ALL SOIL EROSION AND SEDIMENT CONTROL MEASURES TO BE INSTALLED IN ACCORDANCE WITH THE STORMWATER POLLUTION PREVENTION PLANS COMPLETED BY DEWBERRY ENGINEERS INC. DATED 11/20/20. CONTRACTOR TO REFERENCE BOTH THESE PLANS & THE SWPPP WHEN SUBMITTING BID.
  - CONTRACTOR SHALL CONTACT "DIG SAFELY NEW YORK, INC." AT 811 OR 1-800-272-4480 AND LOCATE ALL EXISTING UTILITIES WITHIN THE AREA OF WORK PRIOR TO THE START OF ANY EXCAVATION.

MAP 87.5 BLOCK 1 LOT 90  
 NOW OR FORMERLY  
 MAPLE HILL ESTATES  
 HOMEOWNER'S ASSOCIATION, INC.  
 BOOK 887 PAGE 26  
 PARCEL AREA  
 3,070,669 S.F. ±  
 70.49286 ACRES ±

**PARTIAL SITE PLAN**  
 SCALE: 1"=40' FOR 11"x17"  
 1"=20' FOR 22"x34"



**HOMELAND TOWERS, LLC**  
 9 HARMONY STREET  
 2nd FLOOR  
 DANBURY, CT 06810  
 (203) 297-6345

**NEW YORK SMSA  
 LIMITED PARTNERSHIP**  
 d/b/a  
**verizon**  
 WIRELESS

4 CENTEROCK ROAD  
 WEST NYACK, NY 10994

**GLENACOM LAKE**

| ZONING DRAWINGS |                            |
|-----------------|----------------------------|
| 5               | 12/02/22 ISSUED FOR ZONING |
| 4               | 11/22/22 ISSUED FOR ZONING |
| 3               | 11/04/22 ISSUED FOR ZONING |
| 2               | 10/28/22 ISSUED FOR ZONING |
| 1               | 05/07/20 ISSUED FOR ZONING |
| 0               | 01/20/20 ISSUED FOR ZONING |
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 Dewberry Engineers Inc.  
 600 PARSIPPANY ROAD  
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 PARSIPPANY, NJ 07054  
 PHONE: 973.739.9400  
 FAX: 973.739.8710

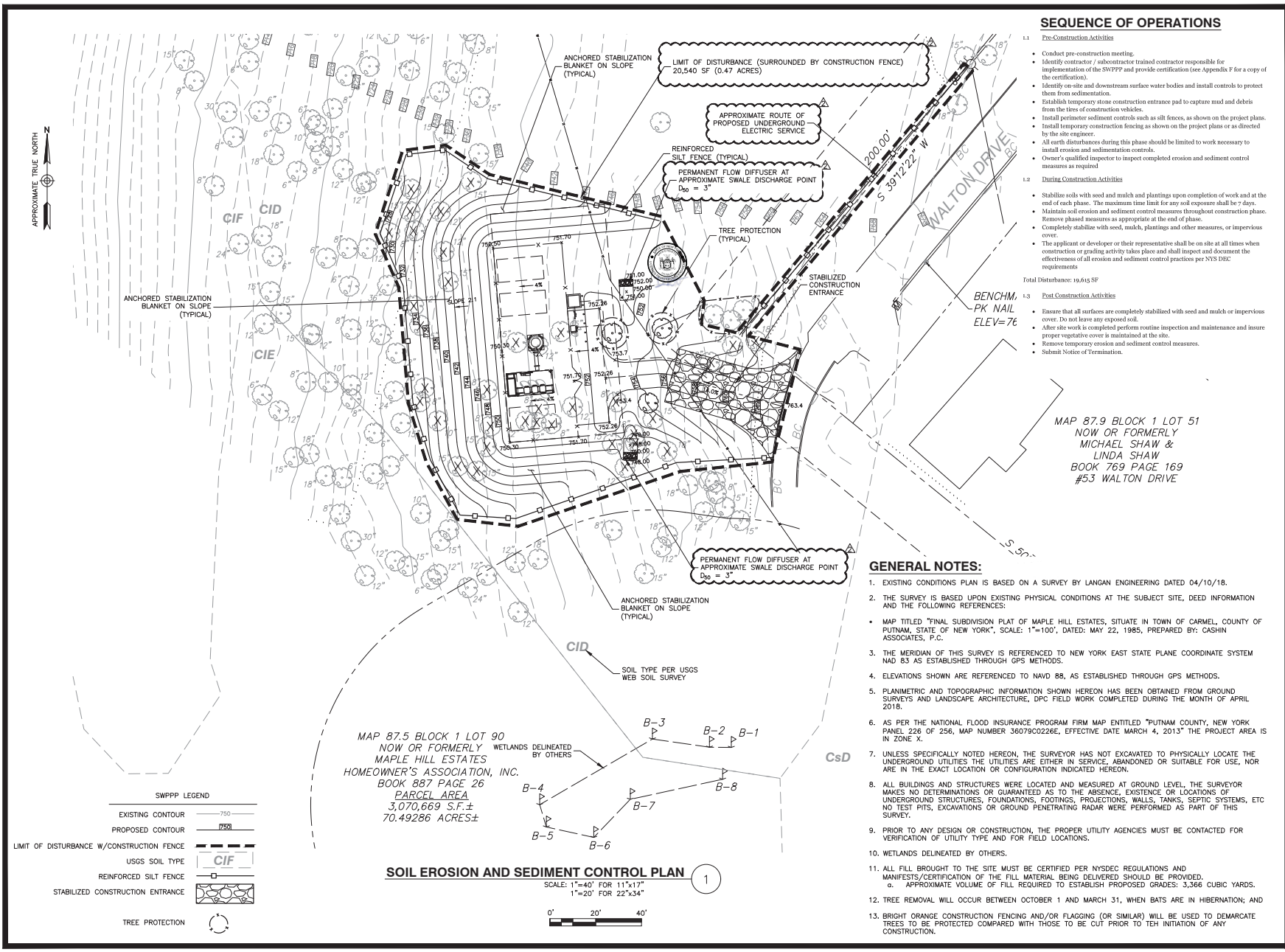


|                 |          |
|-----------------|----------|
| DRAWN BY:       | JC/KFM   |
| REVIEWED BY:    | MS       |
| CHECKED BY:     | DER      |
| PROJECT NUMBER: | 50114387 |
| JOB NUMBER:     | 50114388 |
| SITE ADDRESS:   |          |

WALTON DRIVE  
 MAHOPAC, NY 10541  
 PUTNAM COUNTY

SHEET TITLE  
**PARTIAL SITE PLAN**

SHEET NUMBER



**SEQUENCE OF OPERATIONS**

- 1.1 Pre-Construction Activities
- Conduct pre-construction meeting.
  - Identify contractor / subcontractor trained contractor responsible for implementation of the SWPPP and provide certification (see Appendix F for a copy of the certification).
  - Identify on-site and downstream surface water bodies and install controls to protect them from sedimentation.
  - Establish temporary stone construction entrance pad to capture mud and debris from the tires of construction vehicles.
  - Install perimeter sediment controls such as silt fences, as shown on the project plans.
  - Install temporary construction fencing as shown on the project plans or as directed by the site engineer.
  - All earth disturbances during this phase should be limited to work necessary to install erosion and sedimentation controls.
  - Owner's qualified inspector to inspect completed erosion and sediment control measures as required.
- 1.2 During Construction Activities
- Stabilize soils with seed and mulch and plantings upon completion of work and at the end of each phase. The maximum time limit for any soil exposure shall be 7 days.
  - Maintain soil erosion and sediment control measures throughout construction phase. Remove phased measures as appropriate at the end of phase.
  - Completely stabilize with seed, mulch, plantings and other measures, or impervious cover.
  - The applicant or developer or their representative shall be on site at all times when construction or grading activity takes place and shall inspect and document the effectiveness of all erosion and sediment control practices per NYS DEC requirements.
- Total Disturbance: 19,615 SF
- 1.3 Post Construction Activities
- Ensure that all surfaces are completely stabilized with seed and mulch or impervious cover. Do not leave any exposed soil.
  - After site work is completed perform routine inspection and maintenance and insure proper vegetative cover is maintained at the site.
  - Remove temporary erosion and sediment control measures.
  - Submit Notice of Termination.

MAP 87.9 BLOCK 1 LOT 51  
NOW OR FORMERLY  
MICHAEL SHAW &  
LINDA SHAW  
BOOK 769 PAGE 169  
#53 WALTON DRIVE

**GENERAL NOTES:**

- EXISTING CONDITIONS PLAN IS BASED ON A SURVEY BY LANGAN ENGINEERING DATED 04/10/18.
- THE SURVEY IS BASED UPON EXISTING PHYSICAL CONDITIONS AT THE SUBJECT SITE, DEED INFORMATION AND THE FOLLOWING REFERENCES:
- MAP TITLED "FINAL SUBDIVISION PLAT OF MAPLE HILL ESTATES, SITUATE IN TOWN OF CARMEL, COUNTY OF PUTNAM, STATE OF NEW YORK", SCALE: 1"=100', DATED: MAY 22, 1965, PREPARED BY: CASHIN ASSOCIATES, P.C.
- THE MERIDIAN OF THIS SURVEY IS REFERENCED TO NEW YORK EAST STATE PLANE COORDINATE SYSTEM NAD 83 AS ESTABLISHED THROUGH GPS METHODS.
- ELEVATIONS SHOWN ARE REFERENCED TO NAVD 88, AS ESTABLISHED THROUGH GPS METHODS.
- PLANIMETRIC AND TOPOGRAPHIC INFORMATION SHOWN HEREON HAS BEEN OBTAINED FROM GROUND SURVEYS AND LANDSCAPE ARCHITECTURE, DPC FIELD WORK COMPLETED DURING THE MONTH OF APRIL 2018.
- AS PER THE NATIONAL FLOOD INSURANCE PROGRAM FIRM MAP ENTITLED "PUTNAM COUNTY, NEW YORK PANEL 226 OF 256, MAP NUMBER 36079C02286, EFFECTIVE DATE MARCH 4, 2013" THE PROJECT AREA IN ZONE X.
- UNLESS SPECIFICALLY NOTED HEREON, THE SURVEYOR HAS NOT EXCAVATED TO PHYSICALLY LOCATE THE UNDERGROUND UTILITIES. THE UTILITIES ARE EITHER IN SERVICE, ABANDONED OR SUITABLE FOR USE, NOR ARE IN THE EXACT LOCATION OR CONFIGURATION INDICATED HEREON.
- ALL BUILDINGS AND STRUCTURES WERE LOCATED AND MEASURED AT GROUND LEVEL. THE SURVEYOR MAKES NO DETERMINATIONS OR GUARANTEED AS TO THE ABSENCE, EXISTENCE OR LOCATIONS OF UNDERGROUND STRUCTURES, FOUNDATIONS, FOOTINGS, PROJECTIONS, WALLS, TANKS, SEPTIC SYSTEMS, ETC. NO TEST PITS, EXCAVATIONS OR GROUND PENETRATING RADAR WERE PERFORMED AS PART OF THIS SURVEY.
- PRIOR TO ANY DESIGN OR CONSTRUCTION, THE PROPER UTILITY AGENCIES MUST BE CONTACTED FOR VERIFICATION OF UTILITY TYPE AND FOR FIELD LOCATIONS.
- WETLANDS DELINEATED BY OTHERS.
- ALL FILL BROUGHT TO THE SITE MUST BE CERTIFIED PER NYSDEC REGULATIONS AND MANIFESTS/CERTIFICATION OF THE FILL MATERIAL BEING DELIVERED SHOULD BE PROVIDED.
  - APPROXIMATE VOLUME OF FILL REQUIRED TO ESTABLISH PROPOSED GRADES: 3,366 CUBIC YARDS.
- TREE REMOVAL WILL OCCUR BETWEEN OCTOBER 1 AND MARCH 31, WHEN BATS ARE IN HIBERNATION; AND
- BRIGHT ORANGE CONSTRUCTION FENCING AND/OR FLAGGING (OR SIMILAR) WILL BE USED TO DEMARCATÉ TREES TO BE PROTECTED COMPARED WITH THOSE TO BE CUT PRIOR TO THE INITIATION OF ANY CONSTRUCTION.

**HOMELAND TOWERS, LLC**  
9 HARMONY STREET  
2nd FLOOR  
DANBURY, CT 06810  
(203) 297-6345

**NEW YORK SMSA  
LIMITED PARTNERSHIP**  
d/b/a  
**verizon**  
WIRELESS

4 CENTERCROSS ROAD  
WEST NYACK, NY 10994

**GLENACOM LAKE**

| ZONING DRAWINGS |                            |
|-----------------|----------------------------|
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| A               | 09/27/19 ISSUED FOR REVIEW |

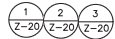
**Dewberry**  
Dewberry Engineers Inc.  
600 PARSIPPANY ROAD  
SUITE 201  
PARSIPPANY, NJ 07054  
PHONE: 973.739.9400  
FAX: 973.739.9710

|                                              |          |
|----------------------------------------------|----------|
| DAVID REVETTE, P.E.<br>NY LICENSE No. 101758 |          |
| DRAWN BY:                                    | JC/KFM   |
| REVIEWED BY:                                 | MS       |
| CHECKED BY:                                  | DER      |
| PROJECT NUMBER:                              | 50114387 |
| JOB NUMBER:                                  | 50114388 |
| SITE ADDRESS:                                |          |

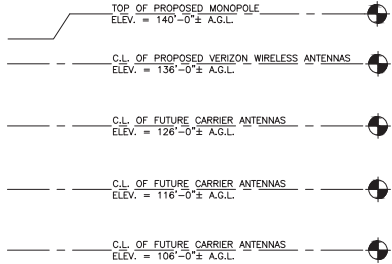
WALTON DRIVE  
MAHOPAC, NY 10541  
PUTNAM COUNTY

|                                              |  |
|----------------------------------------------|--|
| SHEET TITLE                                  |  |
| SOIL EROSION AND<br>SEDIMENT CONTROL<br>PLAN |  |
| SHEET NUMBER                                 |  |

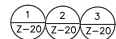
PROPOSED VERIZON WIRELESS ANTENNA  
(TYP.-4 PER SECTOR, 12 TOTAL),  
OVP (TYP.-3) &  
RRH (TYP.-6 PER SECTOR, 18 TOTAL)



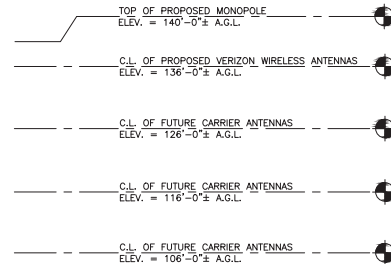
FUTURE CARRIER  
ANTENNA (TYP.)



PROPOSED VERIZON WIRELESS ANTENNA  
(TYP.-4 PER SECTOR, 12 TOTAL),  
OVP (TYP.-3) &  
RRH (TYP.-6 PER SECTOR, 18 TOTAL)

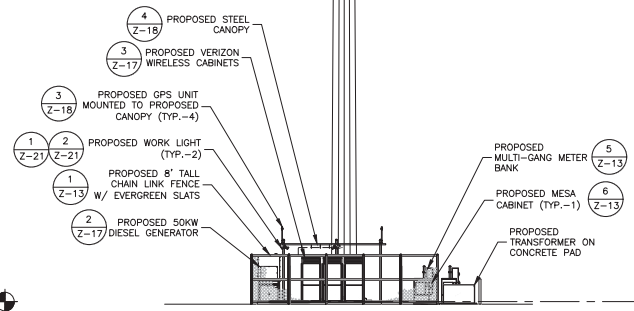
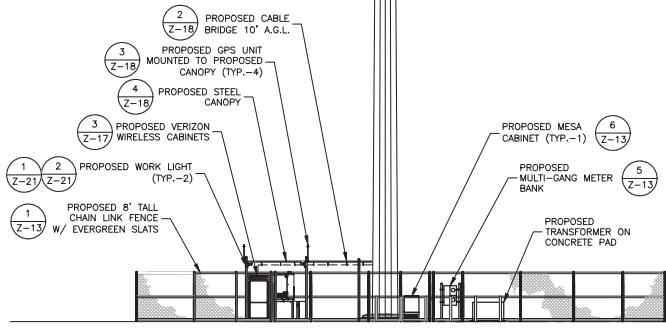


FUTURE CARRIER  
ANTENNA (TYP.)



PROPOSED 140'-0"± TALL  
MONOPOLE (PAINTED BROWN)

PROPOSED 140'-0"± TALL  
MONOPOLE (PAINTED BROWN)



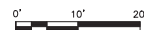
**WEST ELEVATION**

SCALE: 1"=20' FOR 11"x17"  
1"=10' FOR 22"x34"



**SOUTH ELEVATION**

SCALE: 1"=20' FOR 11"x17"  
1"=10' FOR 22"x34"



**HOMELAND TOWERS, LLC**  
9 HARMONY STREET  
2nd FLOOR  
DANBURY, CT 06810  
(203) 297-6345

**NEW YORK SMSA  
LIMITED PARTNERSHIP**

d/b/a  
**verizon**  
WIRELESS

4 CENTERCROSS ROAD  
WEST NYACK, NY 10994

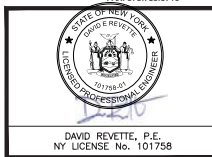
**GLENACOM LAKE**

ZONING DRAWINGS

|   |          |                   |
|---|----------|-------------------|
| 5 | 12/02/22 | ISSUED FOR ZONING |
| 4 | 11/22/22 | ISSUED FOR ZONING |
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| 1 | 05/07/20 | ISSUED FOR ZONING |
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**Dewberry**  
Dewberry Engineers Inc.

600 PARSIPPANY ROAD  
SUITE 301  
PARSIPPANY, NJ 07054  
PHONE: 973.739.9400  
FAX: 973.739.8710



|                 |          |
|-----------------|----------|
| DRAWN BY:       | JC/KFM   |
| REVIEWED BY:    | MS       |
| CHECKED BY:     | DER      |
| PROJECT NUMBER: | 50114387 |
| JOB NUMBER:     | 50114388 |
| SITE ADDRESS:   |          |

WALTON DRIVE  
MAHOPAC, NY 10541  
PUTNAM COUNTY

SHEET TITLE

ELEVATIONS-1

SHEET NUMBER

HOMELAND TOWERS, LLC  
 9 HARMONY STREET  
 2nd FLOOR  
 DANBURY, CT 06810  
 (203) 297-6345

NEW YORK SMSA  
 LIMITED PARTNERSHIP



4 CENTERCROK ROAD  
 WEST NYACK, NY 10994

GLENACOM LAKE

ZONING DRAWINGS

|   |          |                   |
|---|----------|-------------------|
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**Dewberry**<sup>®</sup>  
 Dewberry Engineers Inc.

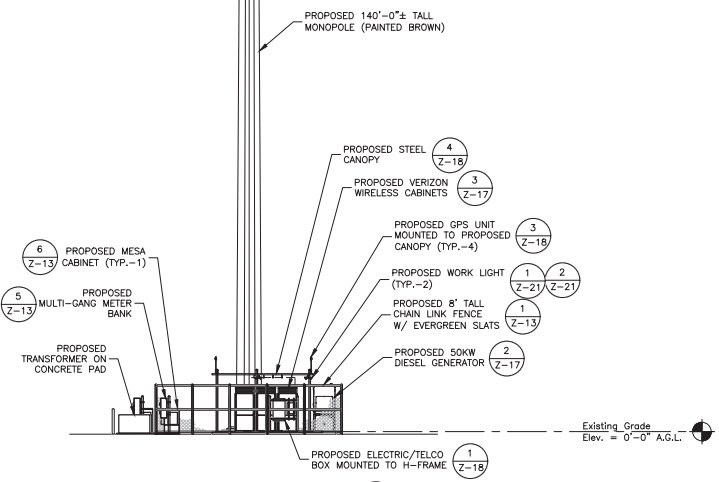
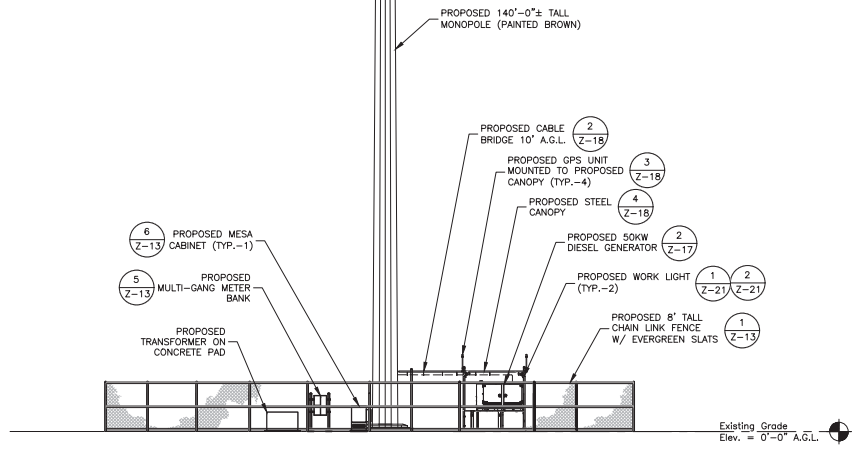
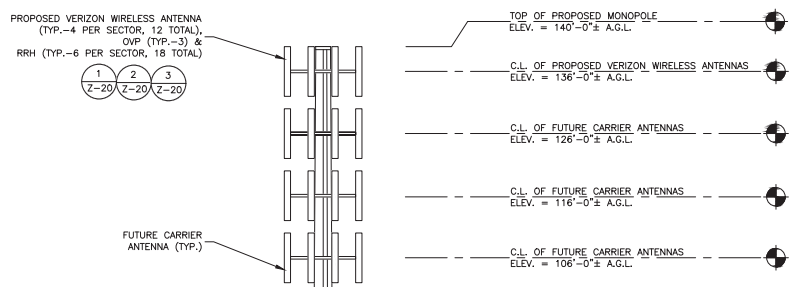
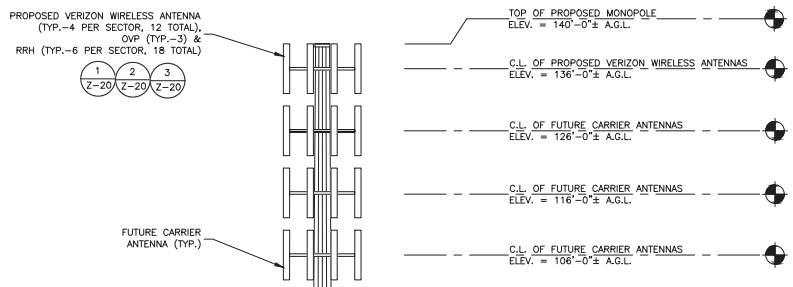
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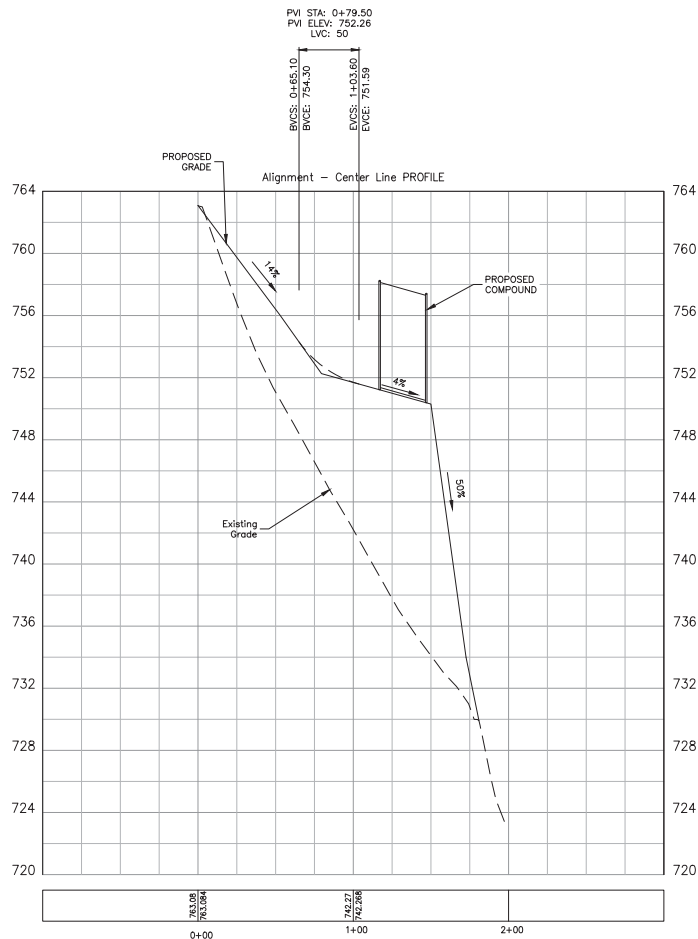
WALTON DRIVE  
 MAHOPAC, NY 10541  
 PUTNAM COUNTY

|              |              |
|--------------|--------------|
| SHEET TITLE  | ELEVATIONS-2 |
| SHEET NUMBER |              |

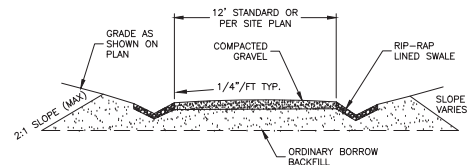
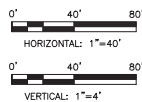


**EAST ELEVATION**  
 SCALE: 1"=20' FOR 11"x17"  
 1"=10' FOR 22"x34"  
 1

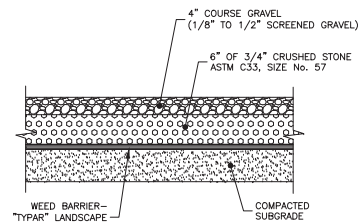
**NORTH ELEVATION**  
 SCALE: 1"=20' FOR 11"x17"  
 1"=10' FOR 22"x34"  
 2



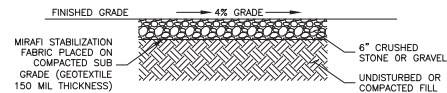
**ACCESS DRIVEWAY PROFILE** 1  
SCALE: HORIZONTAL: 1"=40'  
VERTICAL: 1"=4'



**ACCESS ROAD DETAIL** 2  
SCALE: N.T.S.



**GRAVEL ACCESS ROAD DETAIL** 3  
SCALE: N.T.S.



**GRAVEL YARD DETAIL** 4  
SCALE: N.T.S.

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NEW YORK SMSA  
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d/b/a  
**verizon**  
WIRELESS

4 CENTEROCK ROAD  
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**GLENACOM LAKE**

ZONING DRAWINGS

|   |          |                   |
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DAVID REVETTE, P.E.  
NY LICENSE No. 101758

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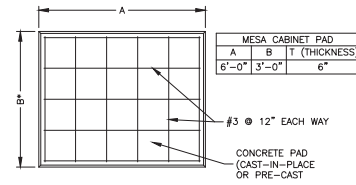
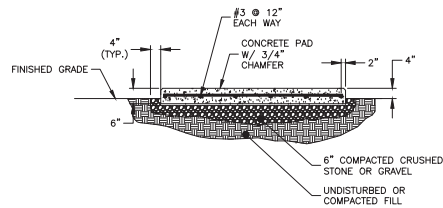
WALTON DRIVE  
MAHOPAC, NY 10541  
PUTNAM COUNTY

SHEET TITLE

ACCESS DRIVEWAY  
PROFILE & DETAILS

SHEET NUMBER





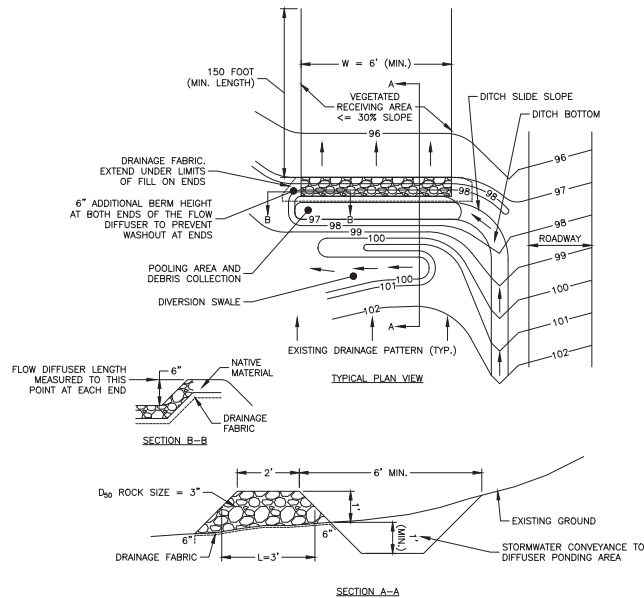
**NOTES:**

1. USE GALVANIZED HILTI EXPANSION ANCHORS (OR APPROVED EQUAL) FOR EQUIPMENT ANCHORAGE.
2. VERIFY THE SIZE OF THE CABINET STAND WITH THE SUPPLIER & UTILITY.
3. FOR SIZE AND LOCATION OF ANCHORS AND OTHER REQUIREMENTS, SEE EQUIPMENT VENDOR DRAWINGS.

**OUTDOOR PAD FOR MINOR EQUIPMENT**

SCALE: N.T.S.

1



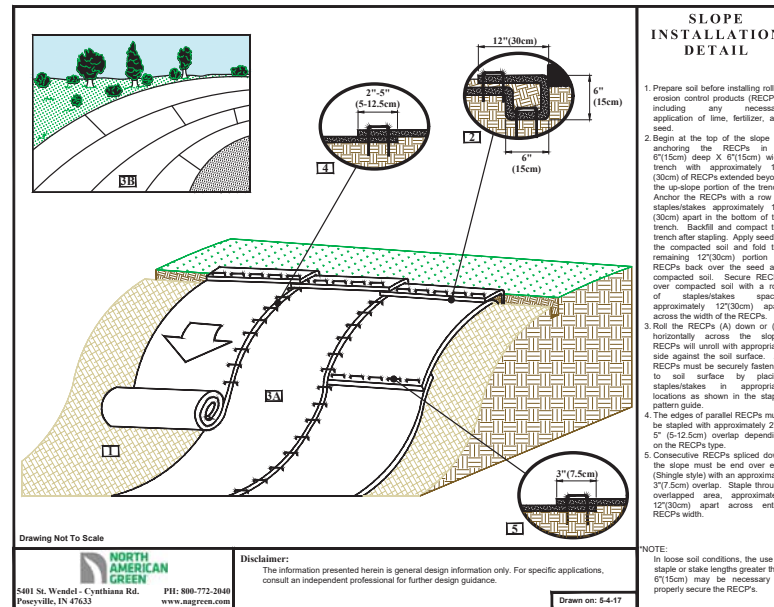
**NOTES:**

1. TYPICAL ELEVATIONS SHOWN HERE ARE TO ILLUSTRATE THE OPERATION OF THE FLOW DIFFUSER.
2. ALL SOIL EROSION AND SEDIMENT CONTROL MEASURES TO BE INSTALLED IN ACCORDANCE WITH THE STORMWATER POLLUTION PREVENTION PLANS COMPLETED BY DEWBERRY ENGINEERS INC. DATED 11/20/20. CONTRACTOR TO REFERENCE BOTH THESE PLANS & THE SWPPP WHEN SUBMITTING BID.

**FLOW DIFFUSER DETAIL**

SCALE: N.T.S.

2



**SLOPE INSTALLATION DETAIL**

1. Prepare soil before installing rolled erosion control products (RECPs), including any necessary application of lime, fertilizer, and seed.
2. Begin at the top of the slope by anchoring the RECPs in a 6"(15cm) deep X 6"(15cm) wide trench with approximately 12"(30cm) of RECPs extended beyond the up-slope portion of the trench. Anchor the RECPs with a row of staples/stakes approximately 12"(30cm) apart in the bottom of the trench. Backfill and compact the trench after stapling. Apply seed to the compacted soil and fold the remaining 12"(30cm) portion of RECPs back over the seed and compacted soil. Secure RECPs over compacted soil with a row of staples/stakes spaced approximately 12"(30cm) apart across the width of the RECPs.
3. Roll the RECPs (A) down or (B) horizontally across the slope. RECPs will install with appropriate side against the soil surface. All RECPs must be securely fastened to soil surface by placing staples/stakes in appropriate locations as shown in the staple pattern guide.
4. The edges of parallel RECPs must be stapled with approximately 2"-5" (5-12.5cm) overlap depending on the RECPs type.
5. Consecutive RECPs applied down the slope must be end over end (Shingle style) with an approximate 3"(7.5cm) overlap. Staple through overlapped area, approximately 12"(30cm) apart across entire RECPs width.

**NOTE:**  
In loose soil conditions, the use of staple or stake lengths greater than 6"(15cm) may be necessary to properly secure the RECPs.

Drawing Not To Scale  
**NORTH AMERICAN GREEN**  
 5401 St. Wendel - Cynthia Rd. PH: 800-772-2849  
 Pewaukee, IN 47033 www.nagreen.com

**Disclaimer:**  
 The information presented herein is general design information only. For specific applications, consult an independent professional for further design guidance.

Drawn on: 6-4-17

**NOTE:**

1. ALL SOIL EROSION AND SEDIMENT CONTROL MEASURES TO BE INSTALLED IN ACCORDANCE WITH THE STORMWATER POLLUTION PREVENTION PLANS COMPLETED BY DEWBERRY ENGINEERS INC. DATED 11/20/20. CONTRACTOR TO REFERENCE BOTH THESE PLANS & THE SWPPP WHEN SUBMITTING BID.

**EROSION CONTROL BLANKET DETAIL**

SCALE: N.T.S.

3

HOMELAND TOWERS, LLC  
 9 HARMONY STREET  
 2nd FLOOR  
 DANBURY, CT 06810  
 (203) 297-6345

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 d/b/a  
**verizon**  
 WIRELESS

4 CENTEROCK ROAD  
 WEST NYACK, NY 10994

**GLENACOM LAKE**

**ZONING DRAWINGS**

|   |          |                   |
|---|----------|-------------------|
| 5 | 12/02/22 | ISSUED FOR ZONING |
| 4 | 11/22/22 | ISSUED FOR ZONING |
| 3 | 11/04/22 | ISSUED FOR ZONING |
| 2 | 10/28/22 | ISSUED FOR ZONING |
| 1 | 05/07/20 | ISSUED FOR ZONING |
| O | 01/20/20 | ISSUED FOR ZONING |
| C | 01/02/20 | ISSUED FOR REVIEW |
| B | 11/07/19 | ISSUED FOR REVIEW |
| A | 09/27/19 | ISSUED FOR REVIEW |

**Dewberry**  
 Dewberry Engineers Inc.  
 600 PARSIPPANY ROAD  
 SUITE 301  
 PARSIPPANY, NJ 07054  
 PHONE: 973.739.9400  
 FAX: 973.739.9710

STATE OF NEW YORK  
 LICENSED PROFESSIONAL ENGINEER  
 19188-01  
 DAVID REVETTE, P.E.  
 NY LICENSE No. 101758

DRAWN BY: JC/KFM

REVIEWED BY: MS

CHECKED BY: DER

PROJECT NUMBER: 50114387

JOB NUMBER: 50114388

SITE ADDRESS:

WALTON DRIVE  
 MAHOPAC, NY 10541  
 PUTNAM COUNTY

SHEET TITLE

CONSTRUCTION  
 DETAILS II

SHEET NUMBER



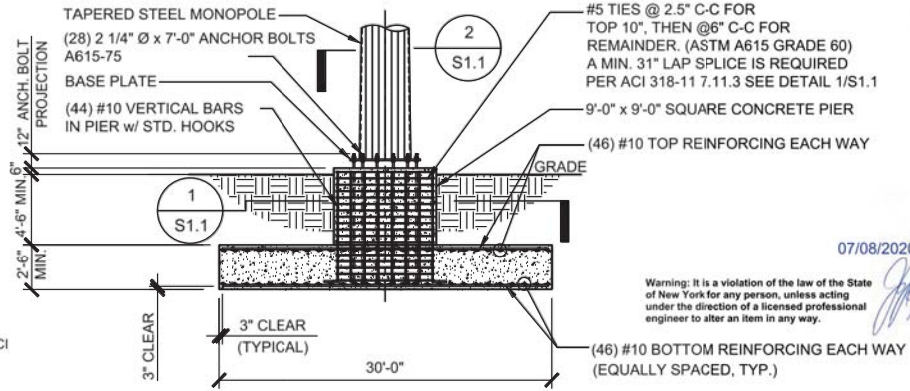
**GENERAL NOTES:**

- FOUNDATION DESIGN PER 2020 NEW YORK STATE BUILDING CODE (2018 INTERNATIONAL CODES) AND PER SOIL REPORT BY DELTA OAKS GROUP PROJECT NO. GEO20-06521-08 DATED JUNE 25, 2020.

SOIL PARAMETERS:

| TOP | BOT. | UNIT WT. (PCF) | NET ULTIMATE BEARING (PSF) | COHESION (PSF) | FRICTION ANGLE (DEG.) |
|-----|------|----------------|----------------------------|----------------|-----------------------|
| 0   | 0.3  | 105            | -                          | 0              | 0                     |
| 0.3 | 2.0  | 105            | -                          | 0              | 28                    |
| 2.0 | 5.0  | 125            | -                          | 0              | 36                    |
| 5.0 | 7.0  | 120            | 30,000                     | 0              | 35                    |

- CONCRETE SHALL BE 4500 P.S.I. (MINIMUM) @ 28 DAYS COMPRESSIVE STRENGTH.
- FOUNDATION INSTALLATION SHALL BE OBSERVED BY AN ENGINEER FROM DELTA OAKS GROUP.
- MAT/PIER FOUNDATION INSTALLATION SHALL BE IN ACCORDANCE WITH ACI 318 LATEST EDITION.
- ALL REINFORCING SHALL BE A.S.T.M. A615 GRADE 60.
- REFER TO SOIL REPORT FOR PROPER PREPARATION AND INSTALLATION REQUIREMENTS.
- CONTRACTOR IS RESPONSIBLE FOR SHORING WORK ETC.

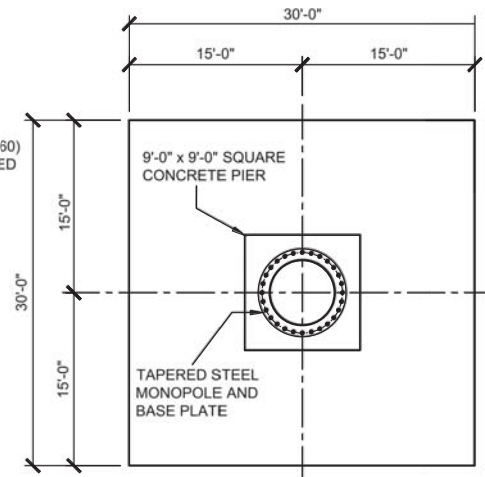


Warning: It is a violation of the law of the State of New York for any person, unless acting under the direction of a licensed professional engineer to alter an item in any way.

07/08/2020

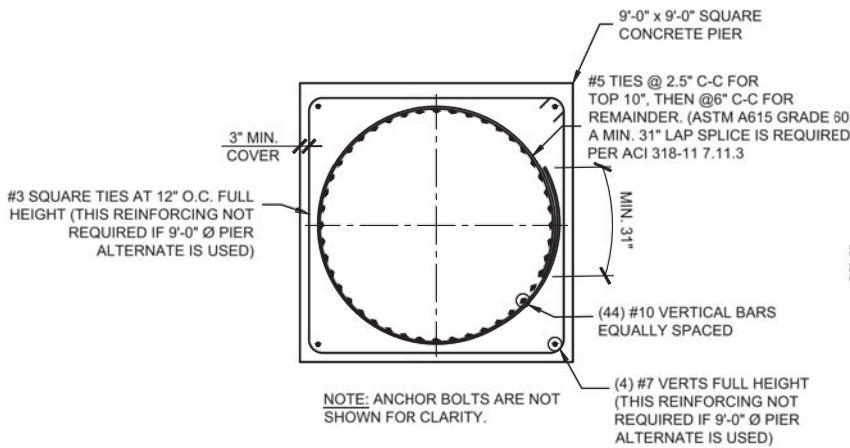
**SPREAD FOUNDATION**

NOT TO SCALE



**SECTION 2**

NOT TO SCALE



**SECTION 1**

NOT TO SCALE

**NOTE:**

- MONOPOLE FOUNDATION TO BE INSTALLED IN ACCORDANCE WITH THE TOWER & FOUNDATION DESIGN DRAWINGS BY AMBOR STRUCTURES DATED 07/02/2020.

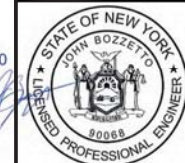
**FOUNDATION DESIGN**

SCALE: N.T.S.

1



**bennett & plies**  
Experience Structural Expertise  
Atlanta, Georgia • Chattanooga, Tennessee  
Boca Raton, Florida  
750 Park of Commerce Dr., Suite 200  
Boca Raton, Florida 33487  
Tel 561 282 2676  
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B & P Job Number 20-03-0051.033



Revisions:

| NO. | DESCRIPTION: | DATE:             |
|-----|--------------|-------------------|
| 5   | 12/02/22     | ISSUED FOR ZONING |
| 4   | 11/22/22     | ISSUED FOR ZONING |
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| B   | 11/07/19     | ISSUED FOR REVIEW |
| A   | 09/27/19     | ISSUED FOR REVIEW |

|                       |                                                                |
|-----------------------|----------------------------------------------------------------|
| DATE:                 | 07/07/2020                                                     |
| SITE NAME (LOCATION): | NY054 GLENACOMA LAKE<br>WALTON DRIVE, MAHOPAC, NEW YORK, 10541 |
| JOB NAME:             | MONOPOLE CELL TOWER - FOUNDATION DESIGN                        |
| DRAWING TITLE:        | SPREAD FOUNDATION DETAIL AND SECTION                           |
| DRAWN BY:             | CS                                                             |
| REVIEWED BY:          | JB                                                             |
| SCALE:                | NOT TO SCALE                                                   |

SHEET NUMBER:

**S-1.1**

**HOMELAND TOWERS, LLC**  
9 HARMONY STREET  
2nd FLOOR  
DANBURY, CT 06810  
(203) 297-6345

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**verizon** WIRELESS  
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WEST NYACK, NY 10994

**GLENACOM LAKE**

| ZONING DRAWINGS |                            |
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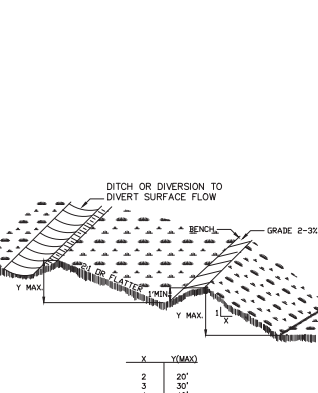
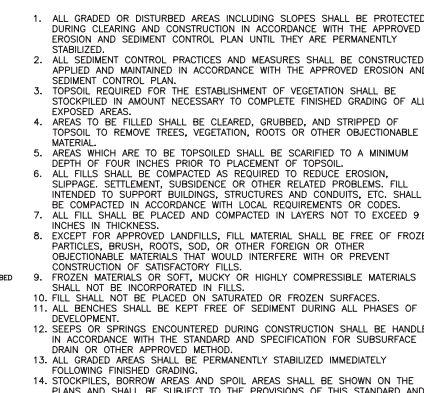
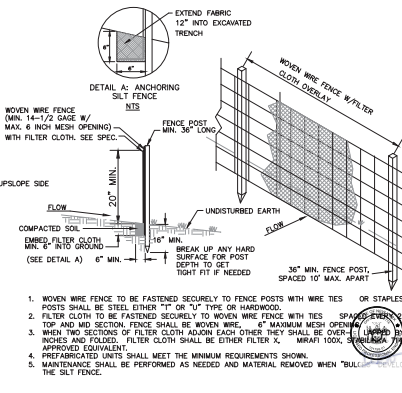
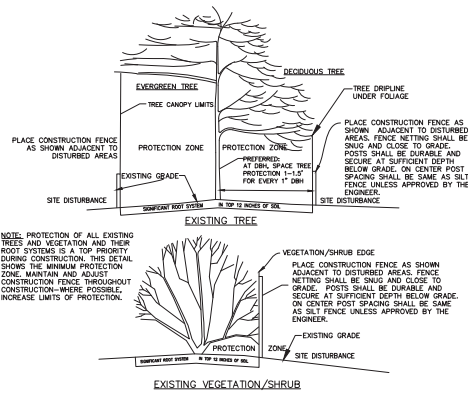
**Dewberry**  
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SUITE 301  
PARSIPPANY, NJ 07054  
PHONE: 973.739.9400  
FAX: 973.739.9710



|                 |          |
|-----------------|----------|
| DRAWN BY:       | JC/KFM   |
| REVIEWED BY:    | MS       |
| CHECKED BY:     | DER      |
| PROJECT NUMBER: | 50114387 |
| JOB NUMBER:     | 50114388 |
| SITE ADDRESS:   |          |

WALTON DRIVE  
MAHOPAC, NY 10541  
PUTNAM COUNTY

|              |                          |
|--------------|--------------------------|
| SHEET TITLE  | CONSTRUCTION DETAILS III |
| SHEET NUMBER |                          |



**SEDIMENT AND EROSION CONTROL NOTES**

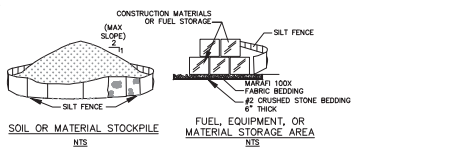
- INSTALL ALL SOIL EROSION CONTROLS REQUIRED BY THE CONTRACT BEFORE ANY CONSTRUCTION ACTIVITIES BEGIN. NOTIFY THE ENGINEER TO PERFORM A PRECONSTRUCTION STORMWATER INSPECTION. NO DISTURBANCE OF THE SITE SHALL OCCUR UNTIL STORMWATER AND EROSION CONTROL MEASURES ARE ACCEPTED BY THE ENGINEER.
- NECESSARY MEASURES SHALL BE TAKEN TO REDUCE THE DISTURBANCE OF EXISTING VEGETATED AREAS TO THE MINIMUM AS REQUIRED BY THE WORK. THESE MEASURES SHALL INCLUDE THE CLEAR MARKING OF ALL CONSTRUCTION LIMITS AND THE DELINEATION OF ALL VEGETATED AREAS TO BE PROTECTED SO AS TO EXCLUDE ALL EQUIPMENT.
- PROVIDE TEMPORARY SEEDING AND MULCH ON ANY AREA WHERE THE EXISTING VEGETATED COVER OR OTHER PROTECTIVE SURFACE HAS BEEN REMOVED OR SUBSTANTIALLY DISTURBED AND FURTHER WORK ON THAT AREA WILL NOT OCCUR WITHIN THE SUCCEEDING 14 CALENDAR DAYS.
- LIMIT ACCESS ON UNSTABILIZED SOIL SURFACES TO THOSE VEHICLES NECESSARY FOR THE WORK. DO NOT PARK EMPLOYEES' VEHICLES ON ERODIBLE SOIL SURFACES. STABILIZED AND PROTECT SOIL SURFACES TO MINIMIZE THE GENERATION OF DUST AND THE OFF-SITE VEHICLE TRACKING OF SOIL MATERIALS.
- THE CONDITION OF ALL EROSION CONTROL MEASURES IN THE CONSTRUCTION SITE SHALL BE JOINTLY INSPECTED AT LEAST ONCE EVERY WEEK BY THE CONTRACTOR. DEFICIENCIES FOUND SHALL BE CORRECTED WITHIN THREE CALENDAR DAYS OF INSPECTION.
- NO DEVIATIONS FROM THE DETAILS SHOWN SHALL BE ALLOWED WITHOUT THE WRITTEN APPROVAL OF THE ENGINEER.

**WINTER STABILIZATION NOTES**

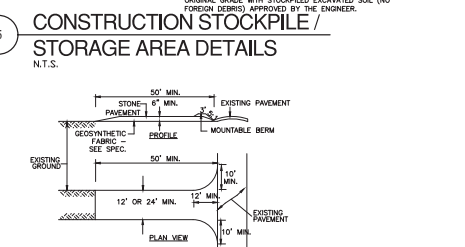
ALL EROSION AND SEDIMENT CONTROLS SHALL BE INSTALLED AND MAINTAINED ACCORDING TO THE NYS STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL.

- SITE STABILIZATION** - ALL BARE/EXPOSED SOILS SHALL BE STABILIZED BY AN ESTABLISHED VEGETATION, STRAW OR MULCH, MATTING, ROCK OR OTHER APPROVED PRODUCT SUCH AS ROLLED EROSION CONTROL SEEDING. SEEDING OF AREAS ALONG WITH MULCHING MAY BE USED, HOWEVER SEEDING ALONE IS NOT CONSIDERED ACCEPTABLE FOR PROPER STABILIZATION.
- SILT FENCE** - SILT FENCE BARRIERS SHALL BE PROPERLY INSTALLED AT ALL LOCATIONS SHOWN ON THE CONTRACT DRAWINGS.
- SLOPES** - ALL SLOPES AND GRADES SHALL BE PROPERLY STABILIZED. ROLLED EROSION CONTROL PRODUCTS SHALL BE USED ON ALL SLOPES GREATER THAN 3:1 (H:V), OR AS CALLED FOR ON THE CONTRACT DRAWINGS.
- SOIL STOCKPILES** - STOCKPILED SOILS SHALL BE PROTECTED BY THE USE OF ESTABLISHED VEGETATION, AN ANCHORED-DOWN STRAW OR MULCH, ROLLED EROSION CONTROL PRODUCT OR OTHER DURABLE COVERING. A BARRIER SHALL BE INSTALLED AROUND THE PILE TO PREVENT ANY EROSION AWAY FROM THAT LOCATION.
- CONSTRUCTION ENTRANCE** - ALL ENTRANCE/EXIT LOCATIONS TO THE SITE SHALL BE PROPERLY STABILIZED AND MAINTAINED TO ACCOMMODATE SNOW MANAGEMENT AS SET FORTH IN THE NYS STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL.
- SNOW MANAGEMENT** - SNOW MANAGEMENT SHALL NOT DESTROY OR DEGRADE EROSION AND SEDIMENT CONTROL PRACTICES.

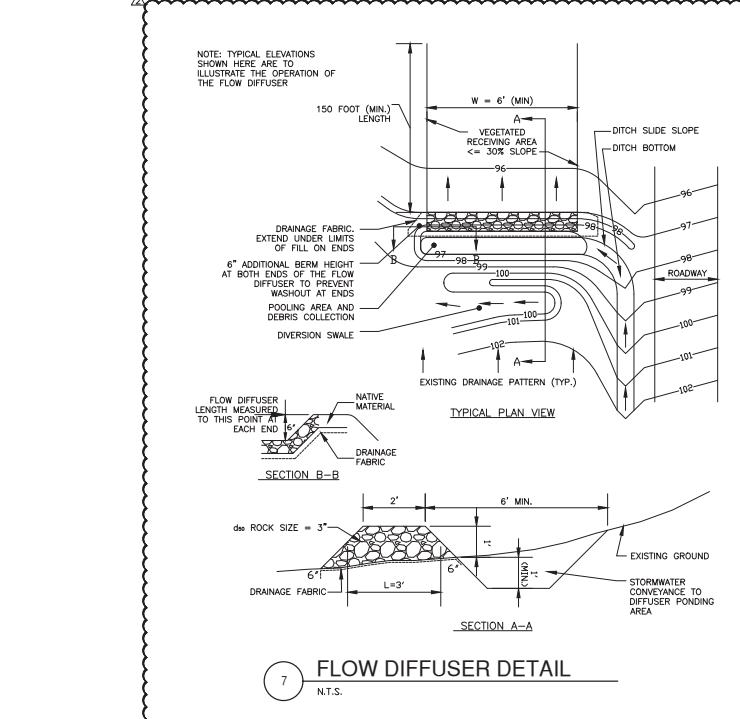
FROZEN GROUND, WINTER CONDITIONS AND EQUIPMENT CAN AFFECT EROSION AND SEDIMENT CONTROL PRACTICES. CHECK FOR DAMAGE DURING MONTHLY INSPECTIONS AND REPAIR AS NECESSARY. THIS IS ESPECIALLY IMPORTANT DURING THAWS AND PRIOR TO SPRING RAIN EVENTS. WEEKLY INSPECTIONS SHALL RESUME NO LATER THAN MARCH 15 OR AS DIRECTED BY THE ENGINEER.



- AREA CHOSEN FOR STOCKPIILING OPERATIONS SHALL BE DRY AND STABLE. THE AREA SHALL NOT BE WITHIN THE DRUPLINE OR CANOPY OF TREES. THE LOCATION MUST BE PRE-APPROVED BY THE ENGINEER PRIOR TO DELIVERY OF ANY MATERIALS.
- NO STOCKPILE AREA SHALL BE LOCATED WITHIN FIFTY (50) FEET OF SURFACE WATER, FLOODPLAIN, SLOPE, OR DRAINAGE FACILITY OR ROADWAY.
- IF STABLE SURFACE NOT AVAILABLE, THE TOP SIX (6) INCHES OF NATIVE MATERIAL SHALL BE ENCAUSTED FROM MATERIAL/FUEL STORAGE AREA AND STOCKPILED TO ALLOW FOR RESTORATION OF THE AREA. IN THE AREA EXCAVATED, PLACE SEPARATION FABRIC AND SIX (6) INCHES OF #3 GROUNDSTONE BEDDING. SEE SPECIFICATIONS. IF APPROVED BY THE ENGINEER, USE OF EXISTING DRAINAGE AREA MAY BE USED IN LIEU OF EXCAVATION, STONE, AND FABRIC.
- SILT FENCING SHALL BE PLACED FIVE (5) FEET FROM THE STOCKPILE.
- TEMPORARY PERIMETER DICES MAY BE REQUIRED TO DIRECT CLEAN RUNOFF FROM STORAGE AREAS.
- REMOVE ALL MATERIALS INCLUDING STONE AND FABRIC WHEN NEED FOR STORAGE IS OVER. RESTORE TO ORIGINAL GRADE WITH STOCKPILED EXCAVATED SOIL (NO FOREIGN DEBRIS) APPROVED BY THE ENGINEER.



- STONE SIZE - USE 1-4 INCH STONE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
- LENGTH - NOT LESS THAN 50 FEET (EXCEPT ON A SNOW STORAGE LOT WHERE A 30 FOOT MINIMUM LENGTH WOULD APPLY).
- THICKNESS - NOT LESS THAN SIX (6) INCHES.
- WIDTH - TWELVE (12) FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS. TWENTY-FOUR (24) FOOT MINIMUM TO SITE.
- GEOTEXTILE - WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE.
- SURFACE WATER - ALL SURFACE WATER FLOWING OR DRIPPING THROUGH CONSTRUCTION ACCESS SHALL BE PIPED BEHIND THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE FINISHED.
- MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. ALL SEDIMENT, SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.
- MARKING IS REQUIRED - MARKING SHALL BE DONE ON A AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
- PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.



HOMELAND TOWERS, LLC  
9 HARMONY STREET  
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LIMITED PARTNERSHIP

d/b/a  
**verizon**  
WIRELESS

4 CENTERCROSS ROAD  
WEST NYACK, NY 10994

**GLENACOM LAKE**

ZONING DRAWINGS

|   |          |                   |
|---|----------|-------------------|
| 5 | 12/02/22 | ISSUED FOR ZONING |
| 4 | 11/22/22 | ISSUED FOR ZONING |
| 3 | 11/04/22 | ISSUED FOR ZONING |
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| 0 | 01/20/20 | ISSUED FOR ZONING |
| C | 01/02/20 | ISSUED FOR REVIEW |
| B | 11/07/19 | ISSUED FOR REVIEW |
| A | 09/27/19 | ISSUED FOR REVIEW |

**Dewberry**  
Dewberry Engineers Inc.

600 PARSIPPANY ROAD  
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PARSIPPANY, NJ 07054  
PHONE: 973.739.9400  
FAX: 973.739.9710

DAVID REVETTE, P.E.  
NY LICENSE No. 101758

DRAWN BY: JC/KFM

REVIEWED BY: MS

CHECKED BY: DER

PROJECT NUMBER: 50114387

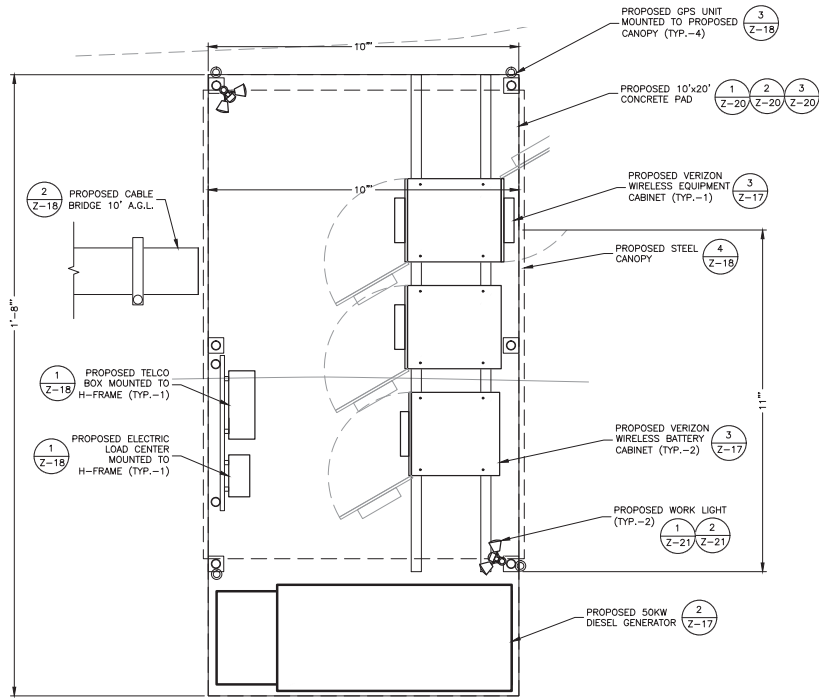
JOB NUMBER: 50114388

SITE ADDRESS:

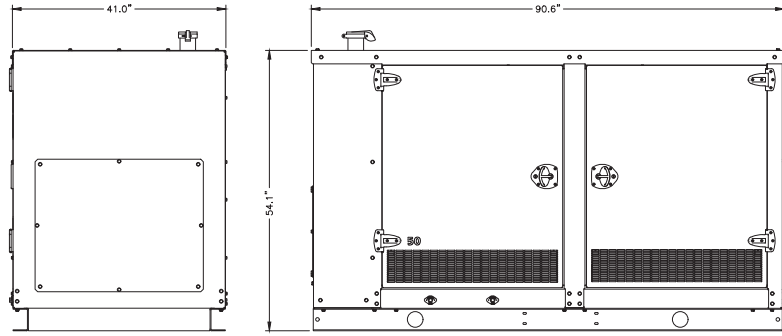
WALTON DRIVE  
MAHOPAC, NY 10541  
PUTNAM COUNTY

SHEET TITLE  
**EROSION CONTROL NOTES & DETAILS**

SHEET NUMBER

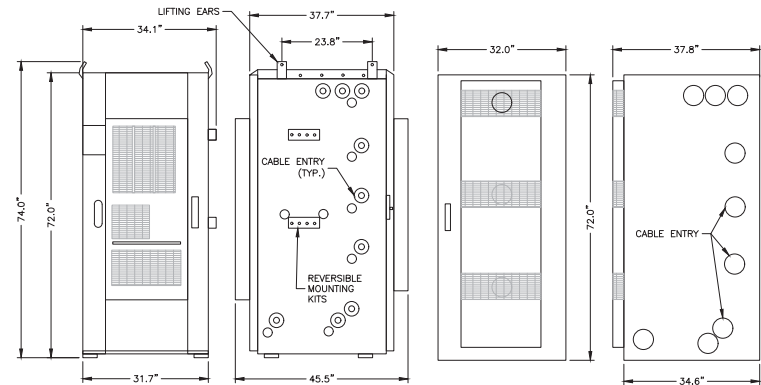


**PROPOSED EQUIPMENT PLAN** (1)  
 SCALE: 1/4"=1' FOR 11'x11'  
 1/2"=1' FOR 22'x34'  
 0' 1' 2' 4'



| KOHLER 50KW DIESEL GENERATOR<br>MODEL S0RE02X |                                                                        |
|-----------------------------------------------|------------------------------------------------------------------------|
| HEIGHT:                                       | 54.1"                                                                  |
| WIDTH:                                        | 41.0"                                                                  |
| DEPTH:                                        | 90.6"                                                                  |
| WEIGHT:                                       | APPROX. 2369 LBS WITH ENCLOSURE<br>(RECTIFIERS AND EQUIPMENT EXCLUDED) |

**DIESEL GENERATOR DETAIL** (2)  
 SCALE: N.T.S.



| ESOF016-ECA01 (DC-AIR/DAC)<br>POWER/EQUIPMENT |                                                |
|-----------------------------------------------|------------------------------------------------|
| HEIGHT:                                       | 72.0"                                          |
| WIDTH:                                        | 31.7"                                          |
| DEPTH:                                        | 45.5"                                          |
| WEIGHT:                                       | 578 LBS (RECTIFIERS<br>AND EQUIPMENT EXCLUDED) |

| ESOF024-ECx01 CABINET |                                                           |
|-----------------------|-----------------------------------------------------------|
| HEIGHT:               | 72.0"                                                     |
| WIDTH:                | 32.0"                                                     |
| DEPTH:                | 34.6"                                                     |
| WEIGHT:               | APPROX. 690 LBS<br>(RECTIFIERS AND EQUIPMENT<br>EXCLUDED) |

**EQUIPMENT CABINET DETAIL** (3)  
 SCALE: N.T.S.

**HOMELAND TOWERS, LLC**  
 9 HARMONY STREET  
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 d/b/a  
**verizon**  
 WIRELESS

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**GLENACOM LAKE**

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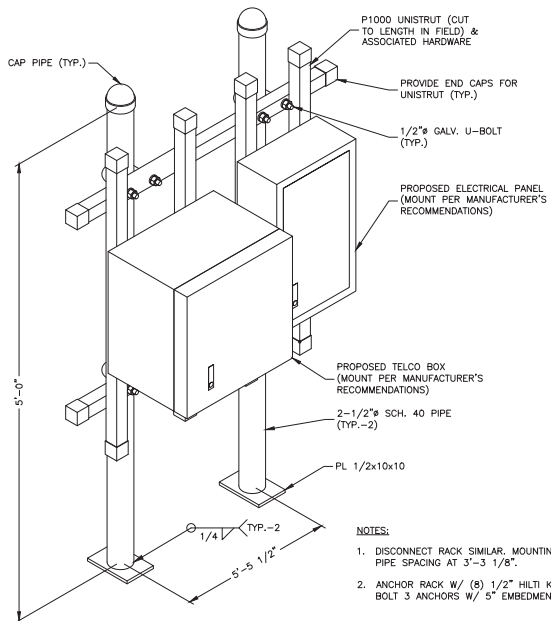
**Dewberry**  
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 PHONE: 973.739.9400  
 FAX: 973.739.8710



|                 |          |
|-----------------|----------|
| DRAWN BY:       | JC/KFM   |
| REVIEWED BY:    | MS       |
| CHECKED BY:     | DER      |
| PROJECT NUMBER: | 50114387 |
| JOB NUMBER:     | 50114388 |
| SITE ADDRESS:   |          |

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 PUTNAM COUNTY

|              |                                                 |
|--------------|-------------------------------------------------|
| SHEET TITLE  | VERIZON WIRELESS<br>EQUIPMENT PLAN &<br>DETAILS |
| SHEET NUMBER |                                                 |

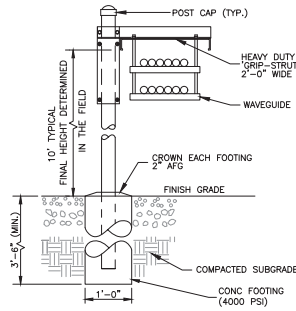


**ELECTRIC/TELCO RACK DETAIL**

SCALE: N.T.S.

1

- NOTES:
1. DISCONNECT RACK SIMILAR, MOUNTING PIPE SPACING AT 3'-3 1/8".
  2. ANCHOR RACK W/ (8) 1/2" HILT KWIK BOLT 3 ANCHORS W/ 5" EMBEDMENT.



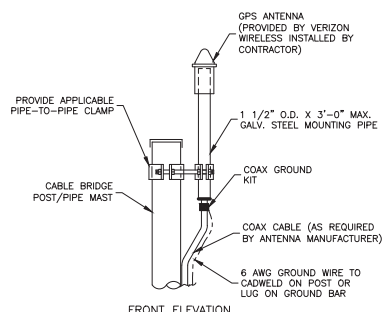
NOTES:

1. CABLE BRIDGE SHALL BE SITE PRO 1 GRIP STRUT TRANSMISSION LINE BRIDGE KIT (P/N: 18240-21613) OR APPROVED EQUAL.
2. ALL COMPONENTS SHALL BE INSTALLED ACCORDING TO MANUFACTURER'S SPECIFICATIONS.
3. CONTRACTOR SHALL DETERMINE REQUIRED QUANTITY OF ALL CABLE BRIDGE COMPONENTS.
4. SNAP-IN HANGERS, SPLICE KITS, HINGE KITS, EXTENSION KITS, STIFFENERS, AND OTHER MISCELLANEOUS HARDWARE SHALL BE PROVIDED BY THE CONTRACTOR AS REQUIRED.
5. CABLE BRIDGE SHALL BE ROUTED TO ACCOMMODATE THE MINIMUM BENDING RADIUS OF THE COAXIAL CABLE.
6. CABLE BRIDGE COMPONENTS SHOWN ARE SCHEMATIC, CONSULT MANUFACTURER FOR EXACT AND CURRENT SPECIFICATIONS.

**CABLE BRIDGE DETAIL**

SCALE: N.T.S.

2



**FRONT ELEVATION**

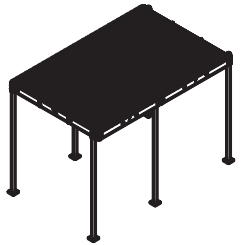
NOTES:

1. LOCATION OF ANTENNA MUST HAVE CLEAR VIEW OF SOUTHERN SKY AND CANNOT HAVE ANY BLOCKAGES EXCEEDING 25% OF THE SURFACE AREA OF A HEMISPHERE AROUND THE GPS ANTENNA.
2. ALL GPS ANTENNA LOCATIONS MUST BE ABLE TO RECEIVE CLEAR SIGNALS FROM A MINIMUM OF FOUR (4) SATELLITES. VERIFY WITH HANDHELD GPS BEFORE FINAL LOCATION OF GPS ANTENNA.

**GPS ANTENNA**

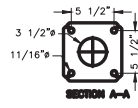
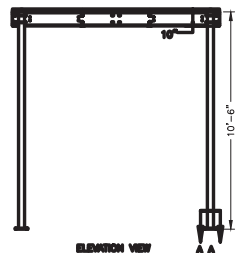
SCALE: N.T.S.

3



**PERFECT VISION PV-WC1016-B**

|                   |                 |
|-------------------|-----------------|
| CANOPY DIMENSIONS | 15'-1" X 10'-0" |
| WEIGHT            | 1777 LBS.       |



NOTES:

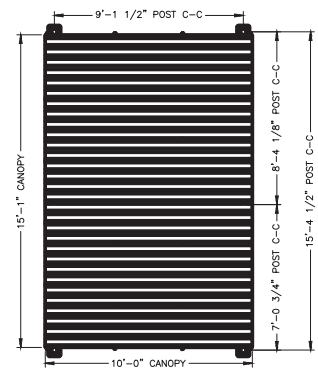
1. INSTALL ICE CANOPY PER MANUFACTURER'S RECOMMENDATIONS.

**TOP VIEW**

**ICE CANOPY DETAIL**

SCALE: N.T.S.

4



**HOMELAND TOWERS, LLC**  
 9 HARMONY STREET  
 2nd FLOOR  
 DANBURY, CT 06810  
 (203) 297-6345

**NEW YORK SMSA LIMITED PARTNERSHIP**  
 d/b/a  
**verizon** WIRELESS  
 4 CENTERCROSS ROAD  
 WEST NYACK, NY 10994

**GLENACOM LAKE**

ZONING DRAWINGS

|   |          |                   |
|---|----------|-------------------|
| 5 | 12/02/22 | ISSUED FOR ZONING |
| 4 | 11/22/22 | ISSUED FOR ZONING |
| 3 | 11/04/22 | ISSUED FOR ZONING |
| 2 | 10/28/22 | ISSUED FOR ZONING |
| 1 | 05/07/20 | ISSUED FOR ZONING |
| 0 | 01/20/20 | ISSUED FOR ZONING |
| C | 01/02/20 | ISSUED FOR REVIEW |
| B | 11/07/19 | ISSUED FOR REVIEW |
| A | 09/27/19 | ISSUED FOR REVIEW |

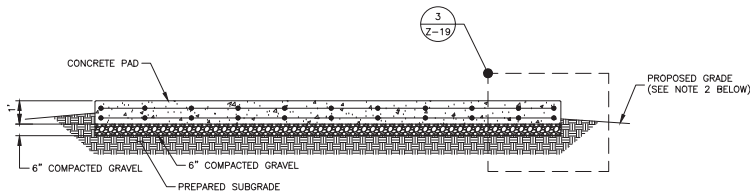
**Dewberry**  
 Dewberry Engineers Inc.  
 600 PARSIPPANY ROAD  
 SUITE 301  
 PARSIPPANY, NJ 07054  
 PHONE: 973.739.9400  
 FAX: 973.739.9710



|                 |          |
|-----------------|----------|
| DRAWN BY:       | JC/KFM   |
| REVIEWED BY:    | MS       |
| CHECKED BY:     | DER      |
| PROJECT NUMBER: | 50114387 |
| JOB NUMBER:     | 50114388 |
| SITE ADDRESS:   |          |

WALTON DRIVE  
 MAHOPAC, NY 10541  
 PUTNAM COUNTY

|              |                            |
|--------------|----------------------------|
| SHEET TITLE  | VERIZON WIRELESS DETAILS I |
| SHEET NUMBER |                            |



**SECTION**

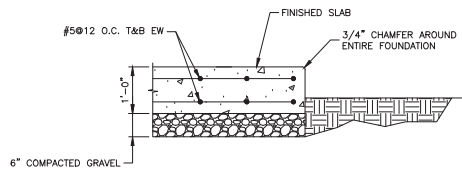
| USE     | PAD LENGTH | PAD WIDTH |
|---------|------------|-----------|
| CABINET | 20'-0"     | 10'-0"    |

**NOTES:**

1. CONTRACTOR TO VERIFY FINAL PAD DIMENSIONS PRIOR TO CONSTRUCTION OF FOUNDATION.
2. GRADE SHALL SLOPE AWAY FROM THE CONCRETE PAD TO ALLOW FOR PROPER WATER RUNOFF.
3. ANCHOR EQUIPMENT TO FOUNDATION PER EQUIPMENT MANUFACTURER RECOMMENDATIONS.
4. IF BEDROCK IS ENCOUNTERED AT A SHALLOW DEPTH, USE DETAIL 3, THIS SHEET.
5. BEARING STRATA MEDIUM TO DENSE INSET GRANULAR MATERIAL OR COMPACTED GRAVEL FILL. 95% COMPACTION.
6. FILL SHALL CONSIST OF CLEAN SOIL. NO DELETERIOUS MATERIALS OR ORGANICS TO BE USED.
7. CONCRETE SHALL HAVE A COMPRESSIVE STRENGTH OF 4,000 PSI.
8. MAINTAIN 3" MIN. COVER ON ALL STEEL REINFORCEMENT.

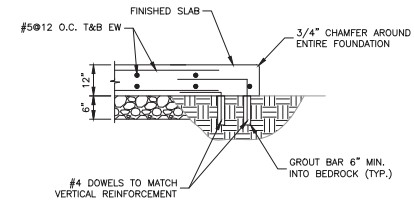
**CONCRETE PAD FOUNDATION**  
SCALE: N.T.S.

1



**CONCRETE PAD DETAIL**  
SCALE: N.T.S.

2



**FOUNDATION SLAB DETAIL @ BEDROCK**  
SCALE: N.T.S.

3

**HOMELAND TOWERS, LLC**  
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2nd FLOOR  
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**NEW YORK SMSA  
LIMITED PARTNERSHIP**  
d/b/a  
**verizon**  
WIRELESS

4 CENTEROCK ROAD  
WEST NYACK, NY 10994

**GLENACOM LAKE**

**ZONING DRAWINGS**

|   |          |                   |
|---|----------|-------------------|
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**Dewberry**  
Dewberry Engineers Inc.

600 PARSIPPANY ROAD  
SUITE 301  
PARSIPPANY, NJ 07054  
PHONE: 973.739.9400  
FAX: 973.739.9710



DAVID REVETTE, P.E.  
NY LICENSE No. 101758

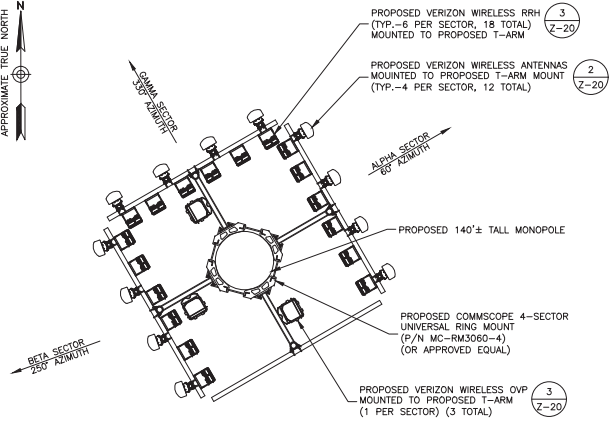
|                 |          |
|-----------------|----------|
| DRAWN BY:       | JC/KFM   |
| REVIEWED BY:    | MS       |
| CHECKED BY:     | DER      |
| PROJECT NUMBER: | 50114387 |
| JOB NUMBER:     | 50114388 |
| SITE ADDRESS:   |          |

WALTON DRIVE  
MAHOPAC, NY 10541  
PUTNAM COUNTY

SHEET TITLE

VERIZON WIRELESS  
DETAILS II

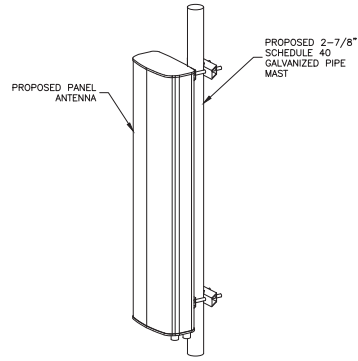
SHEET NUMBER



**NOTES:**

1. AZIMUTHS TBD.
2. CONTRACTOR TO VERIFY FINAL AZIMUTHS WITH RF ENGINEER PRIOR TO ANTENNA INSTALLATION.

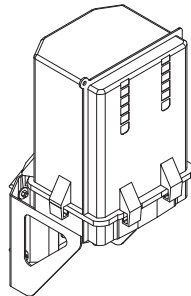
**ANTENNA ORIENTATION PLAN** 1  
SCALE: N.T.S.



**NOTES:**

1. MOUNT ANTENNA PER MANUFACTURER'S RECOMMENDATIONS.
2. WEIGHT INCLUDES MOUNTING BRACKETS.
3. DIMENSIONS OF PROPOSED ANTENNAS SHOWN ARE APPROXIMATE AND SUBJECT TO CHANGE BASED ON AVAILABILITY OF ANTENNAS AT TIME OF CONSTRUCTION. ANTENNAS MAY INCLUDE RRHS, TMA'S AND/OR DIPLEXERS.
4. ANTENNA SIZE, MAKE AND MODEL SUBJECT TO CHANGE BASED ON FUTURE TECHNOLOGY UPDATES AND COVERAGE/CAPACITY NEEDS PER VERIZON WIRELESS REQUIREMENTS.

**ANTENNA DETAIL** 2  
SCALE: N.T.S.



**NOTES:**

1. MOUNT EQUIPMENT ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.
2. CONTRACTOR TO CONFIRM RRH CLEARANCE REQUIREMENTS ARE MET.
3. RRH AND DISTRIBUTION BOX SIZE, MAKE AND MODEL SUBJECT TO CHANGE BASED ON FUTURE TECHNOLOGY UPDATES AND COVERAGE/CAPACITY NEEDS PER VERIZON WIRELESS REQUIREMENTS.

**RRH & OVP DETAIL** 3  
SCALE: N.T.S.

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d/b/a  
**verizon**  
WIRELESS

4 CENTEROCK ROAD  
WEST NYACK, NY 10994

**GLENACOM LAKE**

**ZONING DRAWINGS**

|   |          |                   |
|---|----------|-------------------|
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| 3 | 11/04/22 | ISSUED FOR ZONING |
| 2 | 10/26/22 | ISSUED FOR ZONING |
| 1 | 05/07/20 | ISSUED FOR ZONING |
| 0 | 01/20/20 | ISSUED FOR ZONING |
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**Dewberry**  
Dewberry Engineers Inc.

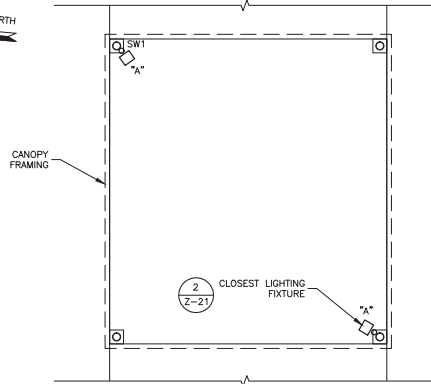
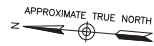
600 PARSIPPANY ROAD  
SUITE 301  
PARSIPPANY, NJ 07054  
PHONE: 973.739.9400  
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|                 |          |
|-----------------|----------|
| DRAWN BY:       | JC/KFM   |
| REVIEWED BY:    | MS       |
| CHECKED BY:     | DER      |
| PROJECT NUMBER: | 50114387 |
| JOB NUMBER:     | 50114388 |
| SITE ADDRESS:   |          |

WALTON DRIVE  
MAHOPAC, NY 10541  
PUTNAM COUNTY

|              |                                               |
|--------------|-----------------------------------------------|
| SHEET TITLE  | VERIZON WIRELESS<br>ANTENNA PLAN &<br>DETAILS |
| SHEET NUMBER |                                               |



**CANOPY LIGHTING**  
SCALE: N.T.S.

1

**SW1:**

1. 120V MOTION SENSOR RAB PART # LS300W.
2. OUTLET BOX: RAB LIGHTING INC. MODEL # B3B.
3. WEATHERPROOF COVER: RAB LIGHTING INC. MODEL #TCB.

**"A":**

1. FIXTURES (2 TOTAL); FULL CUTOFF, RAB LIGHTING INC. MODEL #WPLEDFC52NW.

**NOTE:**

1. LIGHTING TO BE MOUNTED BELOW CANOPY. BOTTOM OF LIGHT FIXTURE APPROXIMATELY 9'± A.G.L.
2. LIGHTING TO BE OPERATED ON A MOTION SENSOR.

LIGHT FIXTURE MOUNTING HEIGHT (MH) = 9'  
 DISTANCE TO PROPERTY LINE (D) = 70'-0"  
 MAXIMUM MOUNTING HEIGHT (MMH) = D/3 + 3'  
 MMH = 70 / 3 + 3'  
 MMH = 26'  
 26' MMH > 9' MH ~ NO LIGHT TRESPASS

**LIGHTING CALCULATIONS**  
SCALE: N.T.S.

3

**WPLED52**



LED 52W Wall packs. 3 cutoff options, patent pending thermal management system. 100,000 hour L70 lifespan. 5-year, no-compromise warranty.  
 Color: Bronze Weight: 17.7 lbs

|                     |                      |              |                      |
|---------------------|----------------------|--------------|----------------------|
| <b>Project:</b>     | <input type="text"/> | <b>Type:</b> | <input type="text"/> |
| <b>Prepared By:</b> | <input type="text"/> | <b>Date:</b> | <input type="text"/> |

| Driver Info |                  | LED Info       |               |
|-------------|------------------|----------------|---------------|
| Type        | Constant Current | Watts          | 52W           |
| 120V        | 0.51A            | Color Temp     | 5000K (Cool)  |
| 208V        | 0.33A            | Color Accuracy | 72 CRI        |
| 240V        | 0.29A            | L70 Lifespan   | 100,000 Hours |
| 277V        | 0.24A            | Lumens         | 3,392 lm      |
| Input Watts | 57.9W            | Efficacy       | 127.7 lm/W    |

**Technical Specifications**

|                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                        |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Compliance</b><br>UL Listed:<br>Suitable for wet locations<br><b>IESNA LM-79 &amp; LM-80 Testing:</b><br>RAB LED luminaires and LED components have been tested by an independent laboratory in accordance with IESNA LM-79 and LM-80                          | <b>Color Consistency:</b><br>7-step MacAdam Ellipse binning to achieve consistent fixture-to-fixture color<br><b>Color Stability:</b><br>LED color temperatures guaranteed to shift no more than 200K in color temperature over a 5-year period<br><b>Color Uniformity:</b><br>RAB's range of Correlated Color Temperature follows the guidelines of the American National Standard for Specifications for the Chromaticity of Solid State Lighting (SSL) Products, ANSI C78.3.7-2017. | <b>Housing:</b><br>Precision die-cast aluminum housing, lens frame<br><b>Mounting:</b><br>Die-cast aluminum wallbracket with (5) 1/2" conduit openings with plugs. Two-plate bracket with tether for ease of installation and wiring.<br><b>Arm:</b><br>Die-cast aluminum with wiring access plate<br><b>Cutoff:</b><br>Standard (15°) |
| <b>Lifespan:</b><br>100,000-Hour LED lifespan based on IES LM-80 results and TM-21 calculations<br><b>Wattage Equivalency:</b><br>Equivalent to 250W Metal Halide<br><b>LED Characteristics</b><br><b>LED:</b><br>Two (2) multi-chip, high-output, long-life LEDs | <b>Construction</b><br><b>Ambient Temperature:</b><br>Suitable for use in up to 40°C (104°F)<br><b>Cold Weather Starting:</b><br>The minimum starting temperatures: -40°C (-40°F)                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                        |

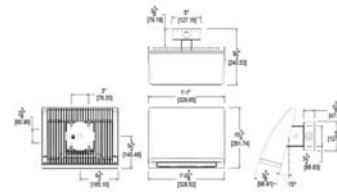
**LIGHTING CUTSHEETS**  
SCALE: N.T.S.

2

**Technical Specifications (continued)**

|                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                              |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Construction</b><br><b>Reflector:</b><br>Specular vacuum-metallized polycarbonate<br><b>Gaskets:</b><br>High-temperature silicone<br><b>Lens:</b><br>Tempered glass<br><b>Finish:</b><br>Formulated for high durability and long-lasting color<br><b>Green Technology:</b><br>Mercury and UV free. RoHS-compliant components. | <b>Electrical</b><br><b>Driver:</b><br>Constant Current, 720mA, Class 2, 100-277V, 50-60 Hz, 100-277VAC, 8 Amps.<br><b>THD:</b><br>7.64% at 120V, 5.72% at 277V<br><b>Power Factor:</b><br>99.1% at 120V, 97.5% at 277V<br><b>Surge Protection:</b><br>6kV<br><b>Other:</b><br><b>Patents:</b><br>The WPLED design is protected by patents in the U.S. Pat D653,877, Canada Pat. 142253, China Pat. ZL201130356930.8, and Mexico Pat. 36921 and pending patent in TW. | <b>Replacement:</b><br>Replaces 250W HID<br><b>Buy American Act Compliance:</b><br>RAB values USA manufacturing! Upon request, RAB may be able to manufacture this product to be compliant with the Buy American Act (BAA). Please contact customer service to request a quote for the product to be made BAA compliant.<br><b>Optical</b><br><b>BUG Rating:</b><br>80 U2 G3 |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

**Dimensions**



**Features**

- High performance LED light engine
- Maintains 70% of initial lumens at 100,000-hours
- Weatherproof high temperature silicone gaskets
- Superior heat sinking with die cast aluminum housing and external fins
- Replaces 250W MH
- Traditional wall pack look from the front
- 3 cutoff options
- 5-Year, No-Compromise Warranty

**Ordering Matrix**

| Family | Cutoff                                                                                    | Wattage              | Color Temp                                                | Finish                      | Driver Options                                                          | Options                                                                                                                                          | Other Options                           |
|--------|-------------------------------------------------------------------------------------------|----------------------|-----------------------------------------------------------|-----------------------------|-------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------|
| WPLED  | Blank = Standard (15 degrees)<br>C = Cutoff (0.5 degrees)<br>FC = Full Cutoff (0 degrees) | 52 = 52W<br>80 = 80W | Blank = 5000K Cool<br>N = 4000K Neutral<br>Y = 3000K Warm | Blank = Bronze<br>W = White | Blank = 120-277V<br>/80 = 480V<br>/BL = 0-Level<br>/D10 = 0-10V Dimming | Blank = No Option<br>/CS = 120V Swivel Photocell<br>/PS2 = 277V Swivel Photocell<br>/PS4 = 480V Swivel Photocell<br>/AC = Lightcloud* Controller | USA = BAA Compliant<br>Blank = Standard |

HOMELAND TOWERS, LLC  
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 d/b/a  
**verizon**  
 WIRELESS

4 CENTERCROK ROAD  
 WEST NYACK, NY 10994

**GLENACOM LAKE**

| ZONING DRAWINGS |                            |
|-----------------|----------------------------|
| 5               | 12/02/22 ISSUED FOR ZONING |
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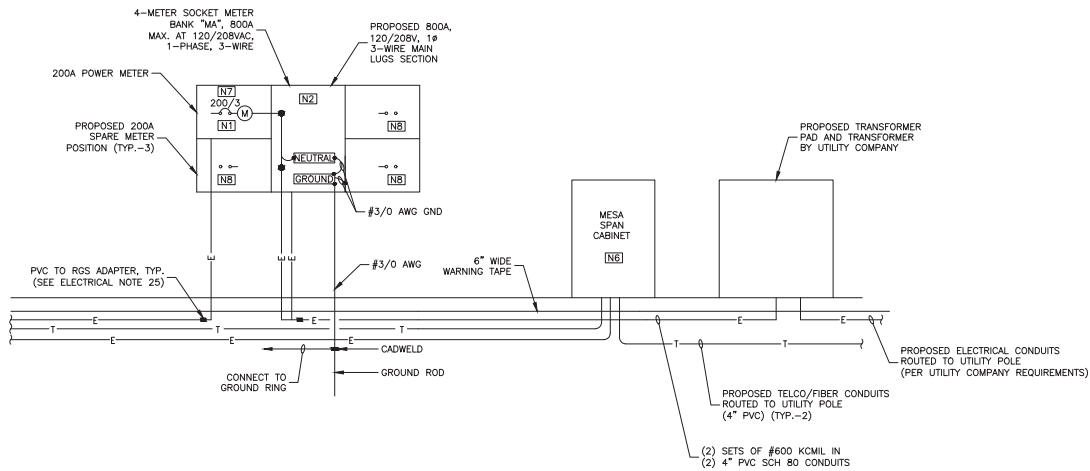


DAVID REVETTE, P.E.  
 NY LICENSE No. 101758

DRAWN BY: JC/KFM  
 REVIEWED BY: MS  
 CHECKED BY: DER  
 PROJECT NUMBER: 50114387  
 JOB NUMBER: 50114388  
 SITE ADDRESS:

WALTON DRIVE  
 MAHOPAC, NY 10541  
 PUTNAM COUNTY

SHEET TITLE  
**VERIZON WIRELESS  
 EQUIPMENT LIGHTING  
 DETAILS**  
 SHEET NUMBER



**NOTES:**

1. CONFIRM ALL ATS, PANELBOARDS, ETC WITH CM PRIOR TO CONSTRUCTION.
2. CONFIRM GENERATOR WIRING & CONTROLS PRIOR TO CONSTRUCTION.
3. MAKE ALL CONNECTIONS AS PER UTILITY COMPANY REQUIREMENTS.
4. REFER TO ALL OTHER ELECTRICAL AND GROUNDING NOTES ON SHEET G-1 OF THESE PLANS.

**ELECTRICAL RISER DIAGRAM & SERVICE ENTRANCES**

SCALE: N.T.S.

1

**GENERAL ELECTRICAL NOTES**

1. SUBMITTAL OF BID INDICATES CONTRACTOR IS COGNIZANT OF ALL JOB SITE CONDITIONS AND WORK TO BE PERFORMED UNDER THIS CONTRACT.
2. CONTRACTOR SHALL PERFORM ALL VERIFICATION OBSERVATION TESTS, AND EXAMINATION WORK PRIOR TO THE ORDERING OF THE ELECTRICAL EQUIPMENT AND THE ACTUAL CONSTRUCTION. CONTRACTOR SHALL ISSUE A WRITTEN NOTICE OF ALL FINDINGS TO THE ARCHITECT LISTING ALL MALFUNCTIONS, FAULTY EQUIPMENT AND DISCREPANCIES.
3. HEIGHTS SHALL BE VERIFIED WITH OWNER PRIOR TO INSTALLATION.
4. THESE PLANS ARE DIAGRAMMATIC ONLY. FOLLOW AS CLOSELY AS POSSIBLE.
5. EACH CONDUCTOR OF EVERY SYSTEM SHALL BE PERMANENTLY TAGGED IN EACH PANELBOARD, PULLBOX, J-BOX, SWITCH BOX, ETC., IN COMPLIANCE WITH OCCUPATIONAL SAFETY AND HEALTH ACT (O.S.H.A.)
6. CONTRACTOR SHALL PROVIDE ALL LABOR, MATERIALS, INSURANCE, EQUIPMENT, INSTALLATION, CONSTRUCTION TOOLS, TRANSPORTATION, ETC., FOR A COMPLETE AND PROPERLY OPERATIVE SYSTEM ENERGIZED THROUGHOUT AND AS INDICATED ON DRAWINGS, AS SPECIFIED HEREIN AND/OR AS OTHERWISE REQUIRED.
7. ALL MATERIALS AND EQUIPMENT SHALL BE NEW AND IN PERFECT CONDITION WHEN INSTALLED AND SHALL BE OF THE BEST GRADE AND OF THE SAME MANUFACTURER THROUGHOUT FOR EACH CLASS OR GROUP OF EQUIPMENT. MATERIALS SHALL BE LISTED AND APPROVED BY UNDERWRITER'S LABORATORY AND SHALL BEAR THE INSPECTION LABEL "U" WHERE SUBJECT TO SUCH APPROVAL. MATERIALS SHALL MEET WITH APPROVAL OF THE DIVISION OF INDUSTRIAL SAFETY AND ALL GOVERNING BODIES HAVING JURISDICTION. MATERIALS SHALL BE MANUFACTURED IN ACCORDANCE WITH APPLICABLE STANDARDS ESTABLISHED BY ANSI, NEMA AND NBFU.
8. CONTRACTOR SHALL CARRY OUT HIS WORK IN ACCORDANCE WITH ALL GOVERNING STATE, COUNTY AND LOCAL CODES AND O.S.H.A.
9. CONTRACTOR SHALL SECURE ALL NECESSARY BUILDING PERMITS AND PAY ALL REQUIRED FEES.
10. COMPLETE JOB SHALL BE GUARANTEED FOR A PERIOD OF ONE (1) YEAR AFTER THE DATE OF JOB ACCEPTANCE BY OWNER. ANY WORK, MATERIAL OR EQUIPMENT FOUND TO BE FAULTY DURING THAT PERIOD SHALL BE CORRECTED AT ONCE, UPON WRITTEN NOTIFICATION, AT THE EXPENSE OF THE CONTRACTOR.
11. ALL CONDUIT ONLY (C.O.) SHALL HAVE A PULL WIRE OR ROPE.
12. PROVIDE PROJECT MANAGER WITH ONE SET OF COMPLETE ELECTRICAL "AS INSTALLED" DRAWINGS AT THE COMPLETION OF THE JOB, SHOWING ACTUAL DIMENSIONS, ROUTINGS, AND CIRCUITS.
13. ALL BROCHURES, OPERATING MANUALS, CATALOGS, SHOP DRAWINGS, ETC. SHALL BE TURNED OVER TO OWNER AT JOB COMPLETION.
14. USE T-TAP CONNECTIONS ON ALL MULTI-CIRCUITS WITH COMMON NEUTRAL CONDUCTOR FOR LIGHTING FIXTURE.
15. ALL CONDUCTORS SHALL BE COPPER.
16. ALL CIRCUIT BREAKERS, FUSES AND ELECTRICAL EQUIPMENT SHALL HAVE AN INTERRUPTING RATING NOT LESS THAN THE MAXIMUM SHORT CIRCUIT CURRENT TO WHICH THEY MAY BE SUBJECTED.
17. THE ENTIRE ELECTRICAL INSTALLATION SHALL BE GROUNDED AS REQUIRED BY NEC.
18. PATCH, REPAIR AND PAINT ANY AREA THAT HAS BEEN DAMAGED IN THE COURSE OF THE ELECTRICAL WORK.
19. IN DRILLING HOLES INTO CONCRETE WHETHER FOR FASTENING OR ANCHORING PURPOSES, OR PENETRATIONS THROUGH THE FLOOR FOR CONDUIT RUNS, M PIPE RUNS, ETC., IT MUST BE CLEARLY UNDERSTOOD THAT TENDONS AND/OR REINFORCING STEEL WILL NOT BE DRILLED INTO, CUT OR DAMAGED UNDER ANY CIRCUMSTANCES.
20. LOCATION OF TENDONS AND/OR REINFORCING STEEL ARE NOT DEFINITELY KNOWN AND, THEREFORE, MUST BE SEARCHED FOR BY APPROPRIATE METHODS AND EQUIPMENT VIA X-RAY OR OTHER DEVICES THAT CAN ACCURATELY LOCATE THE REINFORCING AND/OR STEEL TENDONS.
21. PENETRATIONS IN FIRE RATED WALLS SHALL BE FIRE STOPPED IN ACCORDANCE WITH 2009 INTERNATIONAL BUILDING CODE, NEW JERSEY EDITION.
22. WIRE AND CABLE CONDUCTORS SHALL BE COPPER #12 AWG MINIMUM UNLESS SPECIFICALLY STATED OTHERWISE ON DRAWINGS.
23. VERIFY ALL CONDUIT ROUTING W/OWNER REP.
24. ALL MATERIALS SHALL BE U.L. LISTED.
25. CONDUIT:
  - a. RIGID CONDUIT SHALL BE U.L. LABEL GALVANIZED ZINC COATED WITH ZINC INTERIOR AND SHALL BE USED WHEN INSTALLED IN OR UNDER CONCRETE SLABS, IN CONTACT WITH THE EARTH, UNDER PUBLIC ROADWAYS, IN MASONRY WALLS OR EXPOSED ON BUILDING EXTERIOR. RIGID CONDUIT IN CONTACT WITH EARTH SHALL BE 1/2 LAPPED WRAPPED WITH HUNTS WRAP PROCESS NO. 3.
  - b. ELECTRICAL METALLIC TUBING SHALL HAVE U.L. LABEL. FITTINGS SHALL BE GLAND RING COMPRESSION TYPE. EMT SHALL BE USED ONLY FOR INTERIOR RUNS.
26. ALL ELECTRICAL EQUIPMENT SHALL BE LABELED WITH PERMANENT ENGRAVED PLASTIC LABELS.
27. COORDINATE THE ELECTRICAL SERVICE SHUTDOWN WITH BUILDING OWNER.
28. GROUNDING SYSTEM RESISTANCE SHALL NOT EXCEED 5 OHMS. IF THE RESISTANCE VALUE IS EXCEEDED, NOTIFY THE OWNER FOR FURTHER INSTRUCTION ON METHODS FOR REDUCING THE RESISTANCE VALUE. SUBMIT TEST REPORTS AND FURNISH TO DISPATCH COMMUNICATIONS ONE COMPLETE SET OF PRINTS SHOWING "INSTALLED WORK".
29. UPON COMPLETION OF WORK, CONDUCT CONTINUITY, AND FALL POTENTIAL GROUNDING TESTS FOR APPROVAL. SUBMIT TEST REPORTS TO PROJECT MANAGER. CLEAN PREMISES OF ALL DEBRIS RESULTING FROM WORK AND LEAVE WORK IN A COMPLETE AND UNDAMAGED CONDITION.
30. ALL WALL PENETRATIONS SHALL BE FIRE STOPPED WITH FS-ONE HIGH PERFORMANCE INTUMESCENT FIRE STOP BY JELTI OR APPROVED EQUAL. INSTALL PER MANUFACTURERS' RECOMMENDATIONS.

**ELECTRICAL AND TELEPHONE GENERAL NOTES:**

1. FOLLOWING COMPLETION OF WORK, PROVIDE OWNER WITH AS-BUILT DRAWINGS SHOWING TELEPHONE AND ELECTRIC LOCATIONS.
2. WORK SHALL CONFORM TO THE NATIONAL ELECTRICAL CODE, NEC 2011.
3. COORDINATE WITH UTILITY AND LOCAL ELECTRICAL INSPECTOR FOR FINAL POWER CONNECTION.
4. UTILITY WILL SUPPLY METER. COORDINATE WITH UTILITY FOR METER TYPE AND INTERCONNECTION.
5. CONTRACTOR SHALL CONTACT "DIG SAFELY NEW YORK, INC." AT 811 OR 1-800-272-4480 AND LOCATE ALL EXISTING UTILITIES WITHIN THE AREA OF WORK PRIOR TO THE START OF ANY EXCAVATION.
6. SEE PAGE E-2 FOR GENERAL GROUNDING NOTES.
7. COORDINATE WITH LOCAL TELEPHONE COMPANY FOR ALL ROUTING AND DESIGN.
8. CONTRACTOR TO VERIFY CONTROL WIRING SIZE WITH GENERATOR MANUFACTURER PRIOR TO CONSTRUCTION.
9. CONTRACTOR TO CONFIRM STUB UP LOCATIONS OF WIRING CONDUITS PRIOR TO CONSTRUCTION.

HOMELAND TOWERS, LLC  
 9 HARMONY STREET  
 DANBURY, CT 06810  
 (203) 297-6345

NEW YORK SMSA  
 LIMITED PARTNERSHIP  
 d/b/a  
**verizon**  
 WIRELESS

4 CENTEROCK ROAD  
 WEST NYACK, NY 10994

**GLENACOM LAKE**

| ZONING DRAWINGS |                            |
|-----------------|----------------------------|
| 5               | 12/02/22 ISSUED FOR ZONING |
| 4               | 11/22/22 ISSUED FOR ZONING |
| 3               | 11/04/22 ISSUED FOR ZONING |
| 2               | 10/28/22 ISSUED FOR ZONING |
| 1               | 05/07/20 ISSUED FOR ZONING |
| 0               | 07/20/20 ISSUED FOR ZONING |
| C               | 01/02/20 ISSUED FOR REVIEW |
| B               | 11/07/19 ISSUED FOR REVIEW |
| A               | 08/27/19 ISSUED FOR REVIEW |

**Dewberry**  
 Dewberry Engineers Inc.  
 600 PARSHIPANNY ROAD  
 SUITE 201  
 PARSHIPANNY, NJ 07054  
 PHONE: 973.739.9400  
 FAX: 973.739.8710

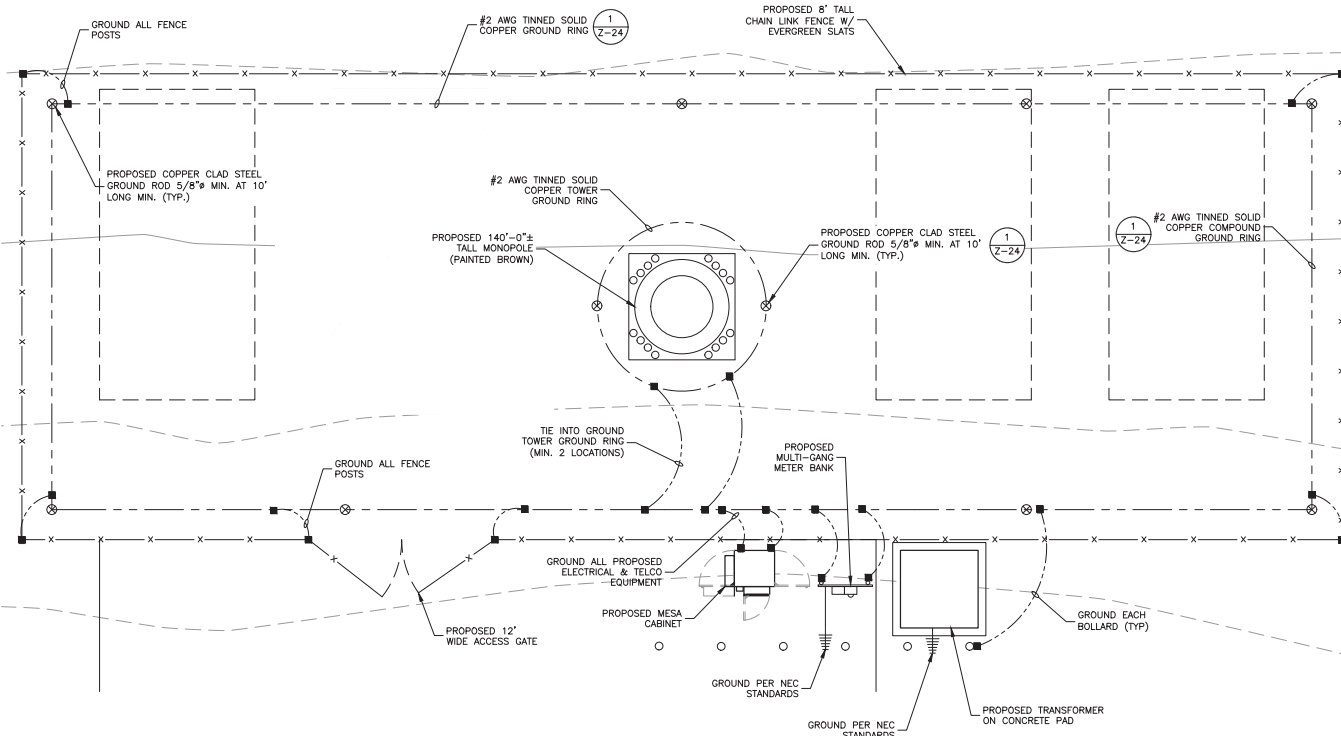
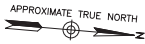


DRAWN BY: JC/KFM  
 REVIEWED BY: MS  
 CHECKED BY: DER  
 PROJECT NUMBER: 50114387  
 JOB NUMBER: 50114388  
 SITE ADDRESS:

WALTON DRIVE  
 MAHOPAC, NY 10541  
 PUTNAM COUNTY

SHEET TITLE: ELECTRICAL RISER DIAGRAM  
 SHEET NUMBER:





**COMPOUND GROUND PLAN** ①  
 SCALE: 1 1/2"=1' FOR 11'x17'  
 3"=1' FOR 22'x34'  
 0' 3' 6' 9'

| GROUNDING LEGEND |                                       |
|------------------|---------------------------------------|
|                  | GROUND BAR                            |
|                  | GROUND COPPER WIRE, SIZE AS NOTED     |
|                  | MECHANICAL GROUND CONNECTION          |
|                  | 5/8"x10" COPPER CLAD STEEL GROUND ROD |
|                  | EXOTHERMIC (CADWELD) CONNECTION       |

**GROUNDING GENERAL NOTES**

1. ALL DOWN CONDUCTORS AND THE GROUND RING CONDUCTOR SHALL BE #2 AWG, SOLID, BARE, TINNED COPPER, UNLESS OTHERWISE NOTED. ALL CONNECTIONS TO GROUND RING SHALL BE EXOTHERMICALLY WELDED. CONDUCTOR SHALL BE AT A MINIMUM DEPTH BELOW GRADE OF 18 INCHES OR TO LEDGE. MINIMUM BEND RADIUS SHALL BE 6 INCHES. CONDUCTOR SHALL BE AT LEAST 24 INCHES FROM ANY FOUNDATION, UNLESS OTHERWISE NOTED.
2. GROUND RODS SHALL BE 5/8" DIAMETER COPPER CLAD, HARGER, T&B, ERICO, OR EQUIVALENT. TOP OF ROD SHALL BE A MINIMUM OF 18" BELOW GRADE. IF LEDGE IS ENCOUNTERED, INSTALL GROUND ROD AT AN ANGLE. ELECTRICAL METER GROUND ROD EXCEPTED.
3. WHERE MECHANICAL CONNECTIONS ARE SPECIFIED, BOLTED, COMPRESSION-TYPE, CLAMPS OR SPLIT-BOLT TYPE CONNECTORS SHALL BE USED.
4. GRIND OFF GALVANIZING IN AFFECTED AREA. EXOTHERMICALLY WELD #2 CONDUCTOR AT 6" ABOVE GRADE OR FOUNDATION, WHICHEVER IS HIGHER. COLD-GALV AFTER. EXOTHERMICALLY WELD OTHER END TO GROUND RING.
5. INSTALL GROUNDING KITS AT ANTENNA CENTERLINE, AND TOWER EXIT POINTS. GROUND COAX LINES. EXOTHERMICALLY WELD #2 DOWN CONDUCTOR TO PLATES, RUN DOWN TOWER, AND TIE INTO GROUNDING SYSTEM.
6. ALL GROUNDING WORK SHALL COMPLY WITH AT&T CONSTRUCTION CONTRACT STANDARDS. FOLLOWING COMPLETION OF WORK, GROUND SYSTEM MUST BE TESTED AND SHALL HAVE A RESISTANCE OF 5 OHMS OR LESS. SUBMIT AN INDEPENDENT "FALL POTENTIAL" TESTING REPORT.
7. ALL GROUNDING CONDUCTORS ON EXTERIOR WALL OF SHELTER SHALL BE INSTALLED IN 3/4" SCH 40 PVC CONDUIT TO 12" BELOW GRADE. ATTACH PVC WITH GALVANIZED "C" CLAMPS.
8. CONTRACTOR SHALL HAND-DIG IN AREAS AROUND EXISTING UTILITIES.
9. NOTIFY CONSTRUCTION ENGINEER IF THERE ARE ANY DIFFICULTIES INSTALLING GROUNDING SYSTEM DUE TO SITE SOIL CONDITIONS.
10. GROUNDING RING IS SHOWN AS SCHEMATIC ONLY. IT IS DESIGNED WITHOUT BENEFIT OF RESISTIVITY TESTING AND DOES NOT NECESSARILY REPRESENT A GROUNDING SYSTEM TO MEET ANY SPECIFIC GROUND RESISTANCE.
11. PRIOR TO POURING CONCRETE, ALL REBAR LOCATED NEAR THE BOTTOM OF THE FOUNDATION SHALL BE BONDED TOGETHER TO FORM A SINGLE GROUNDING ELECTRODE, BY STEEL TIES OR OTHER EFFECTIVE MEANS APPROVED BY NEC 2011 AND STRUCTURAL ENGINEER, AND BONDED TO THE GROUND RING AS DETAILED IN THESE PLANS. (INSPECTION MAY BE REQUIRED PRIOR TO POURING CONCRETE AND MUST BE COORDINATED BY CONTRACTOR.)
12. IN ACCORDANCE WITH NEC 2011 REQUIREMENTS, ALL GROUNDING ELECTRODES PRESENT ON SITE SHALL BE BONDED TOGETHER (REFERENCE 2011 NEC ARTICLE 250.50).
13. CAULK AND SEAL ALL NON-FACTORY SHELTER PENETRATIONS.

**HOMELAND TOWERS, LLC**  
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 2nd FLOOR  
 DANBURY, CT 06810  
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**NEW YORK SMSA  
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 d/b/a  
**verizon**  
 WIRELESS

4 CENTERCROSS ROAD  
 WEST NYACK, NY 10994

| ZONING DRAWINGS |                            |
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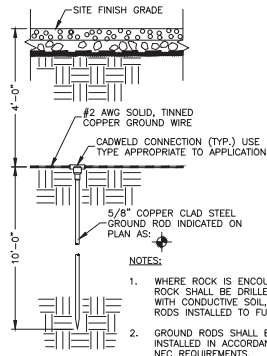
**Dewberry**  
 Dewberry Engineers Inc.  
 800 PARSIPPANY ROAD  
 SUITE 301  
 PARSIPPANY, NJ 07054  
 PHONE: 973.739.9400  
 FAX: 973.739.8710

STATE OF NEW YORK  
 PROFESSIONAL ENGINEER  
 DAVID REVETTE, P.E.  
 NY LICENSE No. 101758

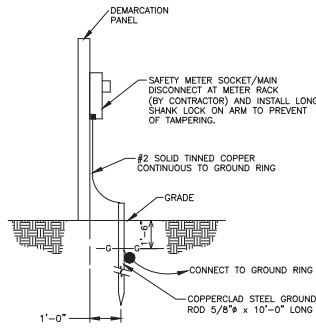
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|-----------------|----------|
| DRAWN BY:       | JC/KFM   |
| REVIEWED BY:    | MS       |
| CHECKED BY:     | DER      |
| PROJECT NUMBER: | 50114387 |
| JOB NUMBER:     | 50114388 |
| SITE ADDRESS:   |          |

WALTON DRIVE  
 MAHOPAC, NY 10541  
 PUTNAM COUNTY

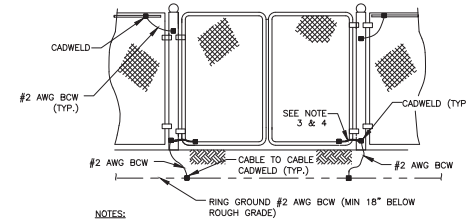
SHEET TITLE  
**COMPOUND  
 GROUNDING PLAN**  
 SHEET NUMBER



**GROUND ROD AND RING DETAIL**  
SCALE: N.T.S.

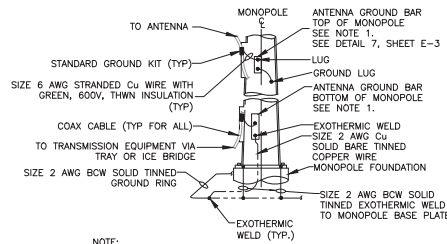


**METER SOCKET GROUNDING**  
SCALE: N.T.S.



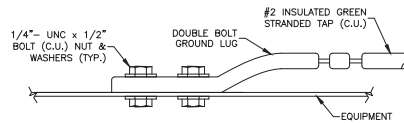
- NOTES:**
1. THE #2 AWG BCW FROM THE RING GROUND SHALL BE CADWELDED TO THE POST ABOVE GRADE.
  2. BOND EACH HORIZONTAL POLE/BRACE TO EACH OTHER AND TO EACH VERTICAL POLE BONDED TO THE EXTERIOR GROUND RING.
  3. GATE JUMPER SHALL BE #4/0 AWG WELDING CABLE OR FLEXIBLE COPPER BRAID BURNDY TYPE B WITH SLEEVES ON EACH END DESIGNED FOR EXOTHERMIC WELDING.
  4. GATE JUMPER SHALL BE INSTALLED SO THAT IT WILL NOT BE SUBJECTED TO DAMAGING STRAIN WHEN GATE IS FULLY OPEN IN EITHER DIRECTION.

**FENCE GROUNDING DETAIL**  
SCALE: N.T.S.

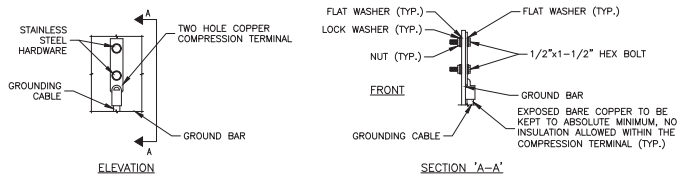


- NOTE:**
1. NUMBER OF GROUND BARS MAY VARY DEPENDING ON THE TYPE OF MONOPOLE, ANTENNA LOCATION AND CONNECTION ORIENTATION. PROVIDE AS REQUIRED. GROUND BAR IS NOT REQUIRED FOR SITES WITH ONE COAX CABLE.

**MONOPOLE GROUNDING**  
SCALE: N.T.S.

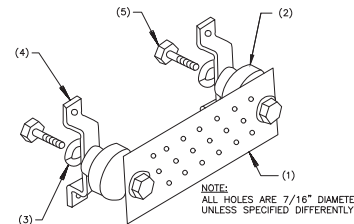


**CONNECTION TO EQUIPMENT DETAIL**  
SCALE: N.T.S.



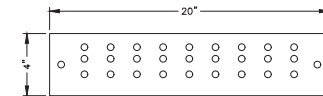
- NOTES:**
1. DOUBLING UP OR STACKING OF CONNECTIONS IS NOT PERMITTED.
  2. OXIDE INHIBITING COMPOUND TO BE USED AT ALL LOCATIONS.

**TYPICAL GROUND BAR MECHANICAL CONNECTION DETAIL**  
SCALE: N.T.S.



- LEGEND:**
1. COPPER GROUND BAR, 1/4"x4"x20", GBIT 14420 J 2-7. HOLE CENTERS TO MATCH NEMA DOUBLE LUG CONFIGURATION.
  2. STANDOFF INSULATORS, HARGER LIGHTNING PROTECTION, INC. CAT. No. 5263-AB.
  3. 1/2" LOCKWASHERS, HARGER CO. CAT. No. LWBS.
  4. WALL MOUNTING STAINLESS STEEL MOUNTING BRACKET, HARGER CAT NO. WBKT-1.
  5. 1/2-13 x 1" HEX HEAD CAP SCREW, HARGER, CAT No. CS885.

**GROUND BAR DETAIL**  
SCALE: N.T.S.



THE GROUND BAR IS 1/4" THICK, 4" WIDE, 20" LONG. IT HAS A HOLE PATTERN "J" WITH A NO. 2 AWG SOLID TINNED TAIL.



**STYLE:** GBIT - GROUND BAR WITH WALL MOUNTING BRACKETS, INSULATORS AND A 25' EXOTHERMICALLY WELDED TAIL.

**SIZE:** THICKNESS, WIDTH, LENGTH IN INCHES.

**HOLE PATTERN:** HOLE PATTERN CENTERS MATCH NEMA DOUBLE LUG CONFIGURATION. SEE ISOMETRIC.

**TAIL:** SPECIFY AMERICAN WIRE GAUGE (AWG) SIZE AND STRANDING REQUIRED. 25' LENGTH IS STANDARD UNLESS OTHERWISE REQUESTED.

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d/b/a  
**verizon** WIRELESS

4 CENTERCROSS ROAD  
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**GLENACOM LAKE**

**ZONING DRAWINGS**

|   |          |                   |
|---|----------|-------------------|
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**Dewberry**  
Dewberry Engineers Inc.

600 PARSIPPANY ROAD  
SUITE 301  
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| SITE ADDRESS:   |          |

WALTON DRIVE  
MAHOPAC, NY 10541  
PUTNAM COUNTY

SHEET TITLE

GROUNDING DETAILS

SHEET NUMBER



ZONING BOARD OF APPEALS  
TOWN OF CARMEL  
PUTNAM COUNTY

Town Hall, Town of Carmel  
60 McAlpin Ave.  
Mahopac, N.Y. 10541  
(845)628-1500

*ME*

IN THE MATTER OF THE APPEAL  
OF  
**Platinum Propane**

TO THE ZONING BOARD OF APPEALS  
OF THE TOWN OF CARMEL

Application Date: 12/9, 2023

Application For (circle applicable): Area Variance ( 156-Attachment ) Use Variance Interpretation 280A

Name of Property Owner: Millside Property Holdings LLC (Platinum Propane) Address: 1035 Route 6, Mahopac, New York

Mailing Address: 11 Schuman Rd, Millwood, NY Phone Number(s): 914 666 2323

Zoning District: Commercial Tax Map: 65.10 - 2 - 11

Applicant is: (circle one) (Owner) (Lessee) (Contract Vendee) [Attach deed, contract of sale or lease agreement]

E-Mail Address: Joe@goplatinumpropane.com

Previous Appeals regarding the subject premises:

| DATE | REQUEST | RESULTS |
|------|---------|---------|
| N/A  |         |         |
|      |         |         |
|      |         |         |
|      |         |         |

List all improvements (1 family dwelling, pool, etc.): 1 Family Dwelling + 5 Leed

The owner shall submit with this application supporting materials including plans, elevations, landscaping diagrams, traffic circulation diagrams, neighborhood land use maps, property survey, photographs of property and any other materials that will assist the Board to understand the request. List attachments here: Insite Engineering, Surveying and Landscape Architecture PC: Landscape and Layout Plan

Is any portion of the property within 500 ft. of any state or county highway, town boundary, parkway or public lands? YES/NO  
Explain: Yes, Route 6

I, the applicant, am seeking permission to: Convert Family house into ~~Propane~~ Propane Facility

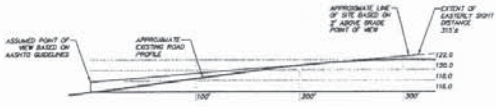
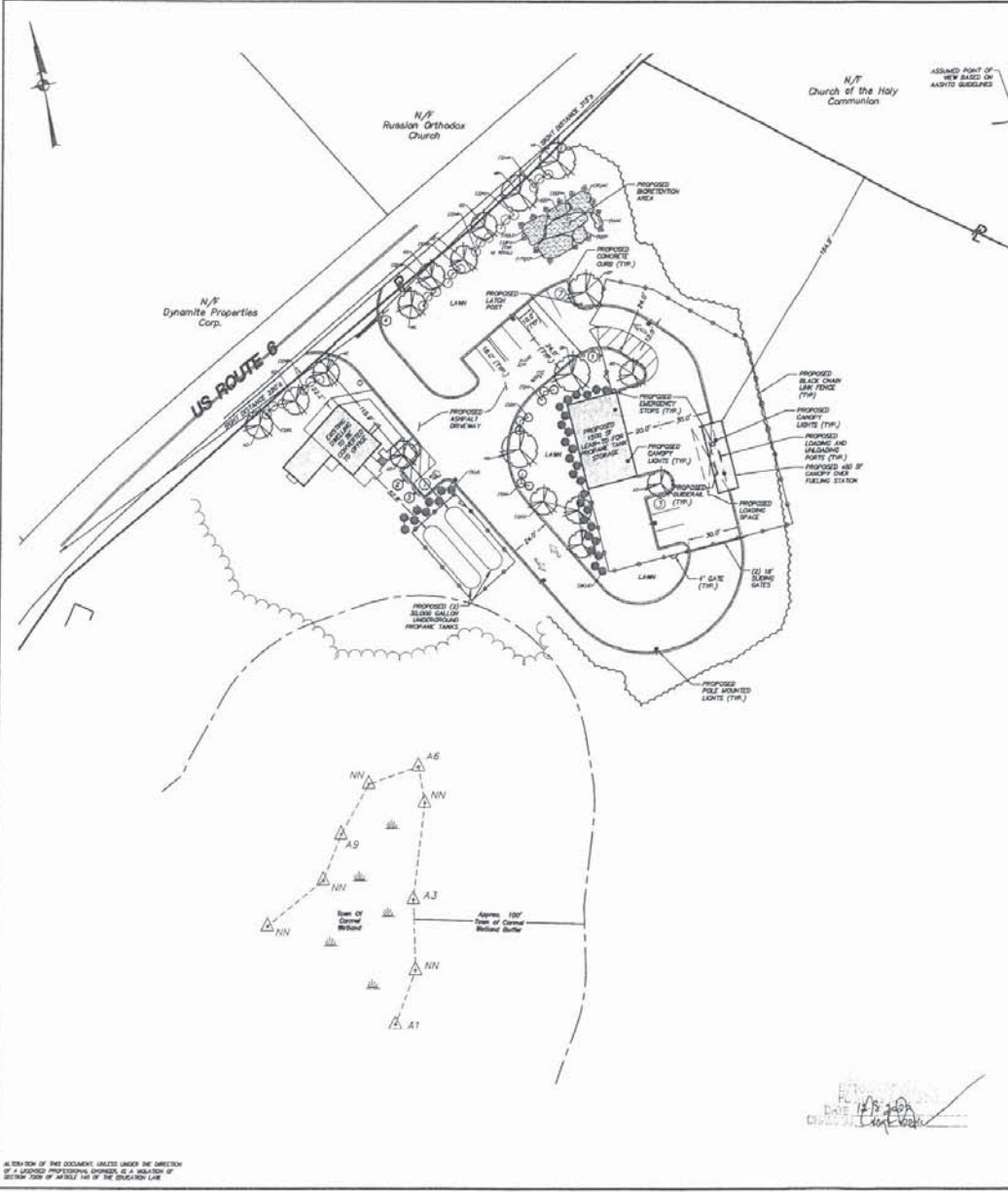
| CODE REQUIRES / ALLOWS                 | PROVIDED    | VARIANCE REQUIRED |
|----------------------------------------|-------------|-------------------|
| Front Yard Setback of 40'              | 22'         | 18'               |
| Minimum Square Footage of 5,000 Sq ft. | 1,938 sq ft | 3,062 sq ft       |
|                                        |             |                   |
|                                        |             |                   |
|                                        |             |                   |

State of New York )  
                                  ss:  
County of Putnam )  
The undersigned petitioner, being duly sworn, deposes and says that (he) (she) has read the foregoing petition and knows the content thereof, and that the same is true to (his) (her) knowledge except as to the matters therein stated to be on information and belief, and as to those matters (he) (she) believes to be true.  
Sworn to before me this 9 day of January, 2023  
*Sarah M. Tobin*  
Notary Public

**Sarah M. Tobin**  
NOTARY PUBLIC, STATE OF NEW YORK  
Registration No. 01T06432691  
Qualified in Putnam County  
Commission Expires May 9, 2026

Petitioner: [Signature] Date: 1/9/23





**EASTERY SIGHT DISTANCE PROFILE**  
SCALE: 1" = 50'

Note: Approximate existing roof profile generated from topography taken from the KINGS Clearinghouse

| PLANT LIST                    |     |                                                 |                   |
|-------------------------------|-----|-------------------------------------------------|-------------------|
| KEY                           | QTY | BOTANICAL/DOMAIN NAME                           | SIZE              |
| <b>SHADE TREE</b>             |     |                                                 |                   |
| AP                            | 3   | Non-invasive / Red maple                        | 1 1/2" CA         |
| AS                            | 1   | Small ornamental / Black Locust                 | 1 1/2" CA         |
| OP                            | 2   | Overhead protection / Pine Oak                  | 1 1/2" CA         |
| <b>FLOWERING TREES</b>        |     |                                                 |                   |
| AC                            | 7   | Landscape ornamental / Forsythia                | 1 1/4" CA         |
| CC                            | 8   | Dark ornamental / Cornus Redod                  | 1 1/4" CA         |
| <b>SHRUBS</b>                 |     |                                                 |                   |
| AB                            | 8   | Low profile ornamental / Compact Hibiscus       | #3 CONT.          |
| AD                            | 3   | Low profile ornamental / Japanese Anemone       | #3 CONT.          |
| AE                            | 3   | Medium ornamental / Mountain Laurel             | #3 CONT.          |
| AF                            | 13  | Medium ornamental / Lantana Yellow              | #3 CONT.          |
| <b>BIORETENTION PLANTINGS</b> |     |                                                 |                   |
| AG                            | 28  | Andropogon gerardii / Big Bluestem              | PLUG/0"           |
| AP                            | 120 | Cirsium pennsylvanicum / Pennsylvania Smartweed | PLUG/0"           |
| AP                            | 24  | Echinochloa polystachya / Purple Coneflower     | PLUG/0"           |
| AV                            | 32  | Stachys palustris / Northern Bleeding Heart     | PLUG/0"           |
| AW                            | 12  | Liatris scariosa / Cardinal Flower              | PLUG/0"           |
| AX                            | 12  | Passiflora ligularis / Yellow Passionfruit      | #1 CONT./AS SHOWN |

- NOTES:**
- The Team of Cornell Watershed Institute to verify all plantings.
  - All plantings shall be installed in accordance with Chapter 142 of the Town of Cornell Code.

- GENERAL SITE SEEDING NOTES:**
- All proposed seeded areas to receive 4" min. depth of liquid. Soil amendments and fertilizer application rates shall be determined based on specific testing of liquid material.
  - Upon that grading and placement of liquid and any required seed amendments, areas to receive permanent vegetation cover in consultation with suitable methods as follows:
    - Seeded areas shall receive a minimum of 100 lbs./1000 sq. ft. of fertilizer applied at the manufacturer's recommended rate using Lanco 100-10-10 (the manufacturer's fertilizer or equivalent).
    - Seeded areas shall receive a minimum of 100 lbs./1000 sq. ft. of fertilizer applied at the manufacturer's recommended rate using Lanco 100-10-10 (the manufacturer's fertilizer or equivalent).
    - Seeded areas shall receive a minimum of 100 lbs./1000 sq. ft. of fertilizer applied at the manufacturer's recommended rate using Lanco 100-10-10 (the manufacturer's fertilizer or equivalent).
  - The seeded areas shall be protected with straw or mulch.

- GENERAL PLANTING NOTES:**
- All plantings to be verified by the Town of Cornell website in question.
  - All plantings to be installed per 142 of the Town of Cornell Code.
  - All proposed planting beds to receive a 12" min. depth of liquid. Soil amendments and fertilizer application rates shall be determined based on specific testing of liquid material.
  - Any new sods installed shall be amended as required by results of soil testing and placed using a method that will ensure compaction.
  - No fertilizer shall be added in permanent landscape plantings. Minimum requirements to be met by incorporation of available organic matter.
  - All plant material to be nursery grown.
  - All plant material to be installed in accordance with the manufacturer's instructions.
  - Plant material shall be taken from healthy nursery stock.
  - All plants shall be grown under climate conditions similar to those in the locality of the project.
  - Plants shall be planted in all locations designated on the plan or as stated in the field by the Landscape Architect.
  - The location and brand of landscape plants shown on the site plan shall take precedence in any discrepancy between the quantities of plants shown on the plan and the quantity of plants in the Plant List.
  - Provide a 2" layer of elevated pine bark mulch (as specified) over existing existing surface or on the plan or over white plastic mulch. Do not place mulch within 2" of tree or shrub trunks.
  - All landscape plantings shall be maintained in a healthy condition at all times. Any dead or diseased plants shall immediately be replaced "in kind" by the contractor (during warranty period) or project owner.
  - See Drawing 2-2 "Site Details" for Ornamental Bush plantings.

- LIGHTING NOTES:**
- All lighting shall be installed on the plan or approved upon.
  - Style and fixture of all landscape lighting to be selected by owner.
  - Proposed lighting shall not be installed during regular business hours, and shall not be in operation during regular business hours.
  - Type, location, and shading of all proposed lighting shall protect the neighbor of light units of adjacent residential properties.
  - All light fixtures to be set back to comply with state safety practices.
  - All lighting within 15' of the building/entrance shall be approved upon.

**LEGEND**

|  |                                         |
|--|-----------------------------------------|
|  | EXISTING PROPERTY LINE                  |
|  | EXISTING BUILDING                       |
|  | EXISTING WETLAND                        |
|  | EXISTING WETLAND BUFFER                 |
|  | EXISTING UTILITY POLE                   |
|  | EXISTING FENCE ROW                      |
|  | EXISTING ROAD                           |
|  | PROPOSED BUILDING                       |
|  | PROPOSED CONCRETE CURB                  |
|  | PROPOSED PAINTED DIRECTIONAL ARROW      |
|  | PROPOSED STRIPED BARRIER PARKING STRIPE |
|  | PROPOSED STOP BAR                       |
|  | PROPOSED STREET ISLAND                  |
|  | PROPOSED # OF STALLS TO BE STRIPED      |
|  | PROPOSED SINGLE POLE SIGN               |
|  | PROPOSED POLE MOUNTED LIGHT             |
|  | PROPOSED CANOPY LIGHT                   |
|  | PROPOSED BUILDING MOUNTED LIGHT         |
|  | PROPOSED GATE                           |
|  | PROPOSED LIGHTING FIXTURE               |
|  | PROPOSED LANDSCAPING                    |

**CO-ZONE REQUIREMENTS**

|                             | ALLOWED     | PROHIBITED   |
|-----------------------------|-------------|--------------|
| Minimum Lot Area            | 45,000 s.f. | 325,000 s.f. |
| Minimum Width               | 200'        | 720'         |
| Minimum Depth               | 200'        | 720'         |
| Minimum 70% Setback         |             |              |
| Front                       | 40'         | 22.5'        |
| Side                        | 25'         | 16.5'        |
| Rear                        | 20'         | 13.5'        |
| Minimum Building Height     | 40'         | 60'          |
| Minimum Required Floor Area | 5,000 s.f.  | 19,000 s.f.  |
| Minimum Lot Coverage        | 40%         | 0.7%         |

**PARKING SUMMARY**

| DECK USE                                 | SPACES             |
|------------------------------------------|--------------------|
| 1 SPACE PER 200 S.F. @ 1,000 S.F.        | = 8 SPACES         |
| INDOOR/PAVEMENT/STREET/DECK/CONCRETE USE | = 2 SPACES         |
| 1 SPACE PER 1,000 S.F. @ 1,000 S.F.      | = 11 SPACES        |
| <b>TOTAL PROPOSED SPACES</b>             | <b>= 21 SPACES</b> |

**SIGN DATA TABLE**

| LOCATION | TEXT | MOUNTED HEIGHT | SIZE OF SIGN (S.F.) | DESCRIPTION              |
|----------|------|----------------|---------------------|--------------------------|
| 1        |      | 40-45'         | 30' x 30'           | White on Red             |
| 2        |      | 40-45'         | 12' x 12'           | Red on White             |
| 3        |      | 40-45'         | 12' x 12'           | Green on White Blue Sign |
| 3        |      | 40-45'         | 12' x 12'           | Green on White Blue Sign |
| 3        |      | 40-45'         | 30' x 30'           | White on Red             |

|    |          |                                     |      |
|----|----------|-------------------------------------|------|
| 2  | 11-23-23 | REVISED PER PLANNING BOARD COMMENTS | J.P. |
| 1  | 5-2-23   | REVISED PER PLANNING BOARD COMMENTS | J.P. |
| AS | DATE     | REVISION                            | BY   |

**INSITE ENGINEERING, SURVEYING & LANDSCAPE ARCHITECTURE, P.C.**

300 West Park Drive, NY 10027  
(914) 228-8800  
(914) 228-1771  
www.insite-ny.com

**PROJECT:** PLATINUM PROPANE - MAHOPAC  
USE: RESIDENTIAL, COMMERCIAL, RETAIL, SERVICE

**DRAWING:** LANDSCAPE & LAYOUT PLAN

PROJECT NUMBER: 22101/100  
DATE: 3-30-23  
SCALE: 1" = 30'

Z.M.P.  
J.L.T.  
A.D.T.

DRIVING NO: SP-1  
SHEET: 2

ATTENTION: THIS DOCUMENT UNLESS UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER IS A VIOLATION OF SECTION 2009 OF ARTICLE 146 OF THE EDUCATION LAW.



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